The Partner as Resource or Restriction?

Labour market careers of husbands and wives and the consequences for inequality between couples

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Labour market careers of husbands and wives and the consequences for inequality between couples

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van de Sociale Wetenschappen

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Ellen Verbakel
Nijmegen, June 2008

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Chapter 1

Introduction

1.1 Introduction

1.1.1 The beginning

It was in the 1970s that the American Bureau of Labor Statistics published a homogamy table that cross tabulated employment statuses of husbands and wives for the first time. It showed a strong tendency of unemployed husbands to have unemployed wives, and employed husbands to have employed wives. Despite the major relevance of this finding, findings were not thought to be surprising. The tendency for two unemployed and two employed spouses[1] to live together implies accumulation of resources within couples, and the greater this accumulation, the greater the inequality between couples. But scholars reasoned that, given the strong correlation between education and employment status and the high incidence of educational homogamy, employment status homogamy would simply be a by-product of educational homogamy, and therefore not a new and unexpected result with consequences that reach further than the often replicated finding of educational homogamy.

These scholars proved to be wrong. Educational homogamy indeed explained part of the association between spouses' employment statuses, but a considerable part of the original association remained, implying that there was more going on between spouses or within couples. And, moreover, what was going on between spouses or within couples seemed to have a stimulating effect on inequality. Interest in couples' labour market careers was born. The present study aims at taking this line of research a step further.

1.1.2 Couple perspective

It was no coincidence that the first homogamy table on husbands' and wives' employment statuses was published in the 1970s. Before that time, female labour participation was low,

[1] Throughout this book, I will use the term 'spouse' and 'partner' interchangeably, without suggesting a difference in marital status between the two. Similarly, when I use the word 'wife' I do not only refer to a married woman, but to a woman in whatever kind of relationship (idem for the word 'husband').

especially among married women and mothers. The socio-economic position of the household was, therefore, based on the occupation of the husband; studying male labour market careers provided conclusions about inequality between individual men and inequality between households at the same time. The steep rise in female labour participation changed this regularity, and for research on socio-economic inequality between households it became necessary to include husbands' as well as wives' occupations (DiPrete, 2002).

The increase of working women extended research on determinants of labour market careers to women, often emphasizing women's traditional caring and housekeeping role (Oppenheimer, 1977; Sørensen, 1983; Waite, 1976). On top of that, the couple perspective triggered new research interests. First of all, scholars have been interested in the association between spouses' positions on the labour market. A positive association, like the one found in the American employment status homogamy table, leads to accumulation of favourable positions in the household, whereas a negative association flattens inequality between households since a negative association implies that someone with a favourable position is typically married to someone with a less favourable position. Much research in this line has focused on spouses' employment statuses, distinguishing employed, non-employed, and unemployed husbands and wives (Davies, Elias, & Penn, 1994; de Graaf & Ultee, 2000; Henkens, Kraaykamp, & Siegers, 1993; Ultee, Dessens, & Jansen, 1988), sometimes also inspired from a social policy point of view (Cooke, 1987; Dex, Gustafsson, Smith, & Callan, 1995; Irwin & Morris, 1993; McGinnity, 2002). Results consistently showed a positive association between spouses. Others restricted themselves to two-earner couples and examined the association between spouses' occupations (Hout, 1982; Smits, Ultee, & Lammers, 1999). The positive association found made clear that couples with two employed persons are likely to consist of either two high-level workers or two low-level workers. Again, the consequences for inequality in society are potentially large.

A second line of research that emerges from the couple perspective is about mutual influences of partners during their relationship. In other words, does the labour market career of the husband influence the labour market career of the wife, and vice versa? (Bernardi, 1999; Bernasco, 1994; Bernasco, de Graaf, & Ultee, 1998; Blossfeld & Drobnič, 2001; Robert & Bukodi, 2002). With its emphasis on what is going on between spouses, this kind of research can potentially solve the puzzle of the American employment status homogamy table that did not just reflect educational homogamy. Conflicting hypotheses make this field of study very interesting in a theoretical sense (I will come back to this in more detail in Section 1.3), which is why the theoretical focus of this book will be on partner effects. Partner effects are another mechanism that can strengthen or weaken inequality between couples. If a highly educated or high-status husband boosts the labour market participation or occupational status of his wife (or vice versa), resources within couples are accumulated. However, there are good reasons to expect the opposite; namely, that a high-earning husband reduces the incentives of his wife to participate in the labour market. Such a negative mechanism has a dampening effect on inequality between couples, regardless the extent of homogamy.

This book contributes to both lines of research interests, aiming at a detailed description and understanding of the way spouses' labour market careers are related in the Netherlands. The two broad research questions read as follows:

1) *To what extent are the labour market outcomes of husband and wife related, and has this relationship changed over time?*
2) *To what extent are labour market outcomes restricted or supported by resources of the partner, and has this changed over time?*

In this study, I apply both a historical and life course perspective, as will be argued below. In the remainder of this introductory chapter I will go into the definition of labour market careers as used in this study, introduce the theoretical notions that will be tested in the subsequent empirical chapters, and give an outline of the book in which I unfold the relation between the following chapters.

1.1.3 Couples' labour market careers from a historical perspective

The increase in female employment gave rise to a couple perspective in research on societal inequality. Compared to the United States and several European countries, the increase in working women started late in the Netherlands, as can be read from Figure 1.1.

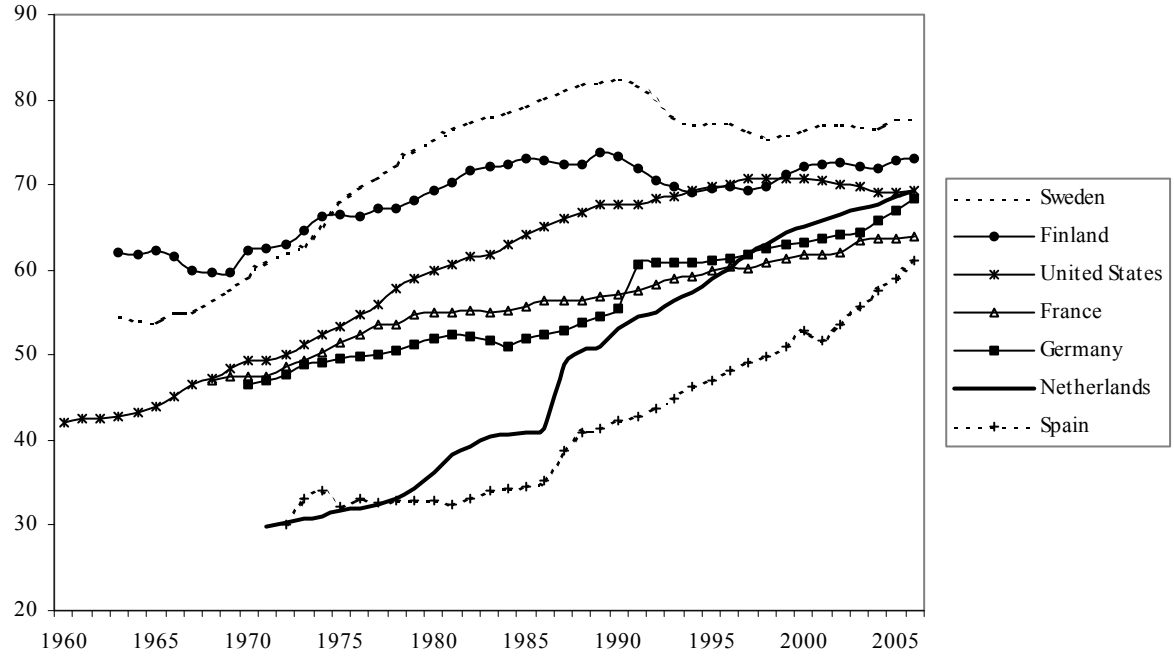


Figure 1.1 Female labour market participation rate in several Western countries between 1960 and 2006 (age 15-64)

Source: OECD Labour Statistics

In 1970, three out of ten Dutch women were employed, whereas about five out of ten women were employed in the United States, France, and Germany; the Scandinavian countries even had a female participation rate around 60 per cent. The participation rate started to increase in the 1970s and the process speeded up enormously in the 1980s; in 1989, 51 per cent of the Dutch women were employed, and the huge gap with surrounding countries had disappeared, although the Netherlands was still situated in the bottom regions. The number kept going up at a similar pace, and with a 69 per cent female participation rate in 2006 the Netherlands take up an intermediate position relative to other Western countries. With respect to female working hours, however, the Dutch average is still rather low as a result of the extremely high proportion of part-time work in the Netherlands compared to other Western countries (Blossfeld & Hakim, 1997).

Economic modernization

Western societies have been subject to extensive economic changes, in light of which the sharp rise in female labour participation can be understood. Firstly, the labour market structure has changed (Hakim, 2000). Generally, Western countries experienced a strong development of the industrial sector after the Second World War, and a strong emergence of the service sector from the 1960s onwards. The accompanying increase in labour demand was solved by bringing women into the labour force, especially because service sector jobs are relatively attractive for women. In contrast to neighbouring countries, the economic boom of the 1960s did not pull Dutch women to the labour market; instead relatively large numbers of migrant workers from the Mediterranean were attracted to solve the shortage of unskilled workers, while men occupied the growing number of service sector jobs. Only from the 1970s onwards was the growth of the service sector able to attract Dutch women to the labour market, probably because the cultural climate was ready then for such a development (de Graaf & Vermeulen, 1997). At the same time, the availability of part-time jobs increased drastically, which made it easier for women to combine paid and unpaid work.

A second noticeable trend is the educational expansion (Shavit & Blossfeld, 1993). Both men and women have become more highly educated, and differences between men and women have disappeared; in the youngest generations women are even slightly more likely to reach a high-level diploma than men. Educational achievements make labour market participation more rewarding both in monetary (higher wage rate) and psychological (nicer jobs) terms. Female educational expansion is definitely not the only cause of the rise in labour participation since this rise also occurred within educational categories (Kalmijn & Luijkx, 2006).

Consumerism has been mentioned as another reason for increased female labour market participation. The general notion of what is an acceptable standard of living has risen, and this has fuelled the need of a second income (Eggebeen & Hawkins, 1990). A typically Dutch situation that postponed the increase in female labour participation compared to neighbouring countries was, in this respect, the relative affluence of the Netherlands; for several decades, one

income per household was sufficient to have a decent living in the Netherlands (Henkens, Grift & Siegers, 2002; Plantenga, 1993).

Cultural modernization

Besides important economic changes, Western societies have experienced radical cultural changes that have contributed to the rise in female labour market participation. For a long time, religion has played a dominant role in people's lives and in society as a whole; traditional values were generally embraced. An important cultural reason for the late rise in female labour market participation in the Netherlands is the system of pillarization (de Graaf & Vermeulen, 1997; Plantenga, 1993), which reached its peak after the Second World War. The Dutch society was strongly divided in a Protestant, Catholic, and socialist pillar, and this division reached far in several domains of public life, such as the educational system, political parties, leisure organizations, neighbourhoods, newspapers, and broadcasting companies. Religious norms were present in all Western countries at that time, but such norms, including the rejection of female labour market participation (and also birth control), were relatively easier to impose on the strongly integrated Dutch than on the more loosely connected populations in other countries.

From the 1970s onwards, the religious proportion of the Dutch population declined sharply. Whereas more than 60 per cent of the population considered themselves church members in 1970, 36 per cent did so in 2004[2] (Becker & De Hart, 2006). This rapid trend towards secularization erased the strong religious influence that resulted from the system of pillarization, and fuelled a powerful modernization process. In the traditional breadwinner model, the husband is supposed to be responsible for the household income and is, therefore, active on the labour market, whereas the wife is responsible for household and caring tasks and, therefore, stays at home. This strong gendered division of labour is not endorsed in a modern view, which advocates an equal division of paid and unpaid labour between men and women. As a result, female labour market participation has become more and more accepted and even stimulated. One might even argue that, nowadays, there is some disapproval of non-working women, especially if they are highly educated. Approval of working mothers with children in pre-school age rose from 21 per cent in the beginning of the 1980s to 66 per cent in 2004 for women, and from 21 to 59 per cent for men. Support is even stronger where school-aged children are concerned: in 2004, 89 per cent of women and 85 per cent of men approved of female labour market participation (63 and 57 per cent for women and men respectively in 1981) (Kraaykamp, 2007). On the individual level, attitudes and employment behaviour coincide (Treas & Widmer, 2000). Women with modern values are more likely to be employed, to work full-time, and to continue working after child birth.

[2] These numbers are based on a two-stage question: first, respondents are asked whether they belong to a church, and only if they do, they are asked which denomination they belong to. Lower numbers of non-church members are obtained by a one-stage question that offers the respondent the choice between no church and several denominations at the same time: 18% in 1960 and 41% in 2004. The two-stage question is generally considered as being most reliable (Becker & De Hart, 2006).

Cultural modernization is also expressed in the general trends towards emancipation and individualization. The emancipation movement is aimed at equal opportunities for men and women and has brought more equality within households, among others with respect to the division of labour. The process of individualization marks the tendency of people to live their lives more individualistically, more independent of their social environment. One of the outcomes is that more women prefer to be financially independent of their husbands, also motivated by the fast rising divorce rate (Davis, 1984), and that people strive for personal growth and fulfilment.

Closely related to cultural changes are demographic changes of which the declining fertility rate is the most influential one when it comes to female working careers. The decline of the religious dominance together with the introduction of the contraceptive pill lowered the fertility rate drastically (de Graaf & Vermeulen, 1997; Hendrickx, Bernasco, & de Graaf, 2001). Rates started to fall from 1965, although the Dutch rate was still high compared to other Western European countries. In 1965, countries like Sweden, Germany, and Belgium had a fertility rate around 2.50, whereas the Netherlands still had a fertility rate of 3.04. In the next decade, the fertility rate declined rapidly, and in present-day society Dutch women have on average 1.70 children. The average age at first child birth is 29, which gives women time to start a career before the birth of their first child (Eurostat, ec.europa.eu/eurostat. Date of extraction: December 17, 2007).

We can conclude that economic and cultural modernization have changed the Dutch society enormously. Since these changes are strongly related to labour market behaviour and gender issues, it is very relevant to examine couples' labour market careers from a historical perspective. The association between spouses' labour market careers as well as the way husbands and wives influence each others' careers can be subject to change, and both can have consequences for the trend in societal inequality. In this book, the historical time frame will focus on the second half of the twentieth century.

1.1.4 Couples' labour market careers from a life course perspective

Over the life course, people experience influential events and go through different stages. For an individual, finishing full-time education, starting a first job, and leaving the parental home are important milestones in early adult life. Finding a partner and forming a household are important transitions as well, and they mark the kick-off of the life course of the couple. The organization of a couple's life is highly influenced by the birth of a child, and the life stages of their children (e.g. when they become independent from their parents). During the life course, labour market careers are subject to change as well: husbands or wives get promoted, are confronted with unemployment, decide to reduce working hours, find a new job, and so on. Career decisions largely depend on the situation in the household at that particular time because jobs are such strong determinants of the available income and time in the household, which are two basic needs to organize a household adequately. During the relationship, partners therefore need to harmonize their working lives, which leads us to expect that labour market careers are influenced by the

situation of the partner (Blossfeld & Drobnič, 2001). This life course perspective forms the basis of our theoretical ideas about partner effects, which will be further discussed in Section 1.3.

I take the life course perspective a step further by studying couples' labour market careers over a longer time span. This means that I will also shift the focus from single career events to the outcome of career events together. Accumulation of resources plays a central role. If labour market success or educational achievements accelerate later labour market success, for instance by increasing the probability of upward mobility, people with favourable 'starting' positions become better and better off in the course of their lives compared to people with less favourable 'starting' positions. This accumulation can even be strengthened by the influence of the partner. If, for reasons that I will outline in Section 1.3, a highly educated husband stimulates the career of his wife, the sum of all positive effects during several years of their relationship implies a large positive effect in the long run. Accumulative mechanisms are capable of increasing inequality between couples in the course of their lives, even with unchanging associations between the labour market careers of husband and wife.

1.2 Labour market careers: participation and job level

In this book, I focus on two aspects of labour market careers in particular: participation and job level. Labour market participation refers both to the dichotomy of having or not having a job, and to the number of working hours, given that someone has a job. Job level refers to labour market success, in this study defined in terms of occupational status or wage rate. The choice for these two aspects is threefold.

First of all, the combination of the two represents the actual socio-economic position of an individual or a couple since income is, in essence, the product of working hours and hourly wage. A focus on participation and job level, therefore, matches the background of this study, namely the consequences of couples' labour market careers for socio-economic inequality.

Secondly, participation and job level cover different dimensions of the working life, which makes it theoretically interesting to distinguish them. Job level predominantly refers to labour market success, what people achieve on the labour market. Participation is more connected to time issues, how much time do people spend on the labour market versus time spent at home. The distinction is not perfect, there is some overlap: on the one hand, the many responsibilities that come with a high-level job may have consequences for the time that needs to be spent on that job (and not at home); and on the other hand, being employed can also be seen as a measure of success on the labour market. Also, full-time work usually increases chances on later success. Nevertheless, different mechanisms may play a role when it comes to participation compared to job level, and our understanding of the mechanisms behind couples' labour market careers will benefit from a separate study of these two aspects of the labour market career.

Finally, the fact that participation and job level are strongly related to available time and income in the household makes them important for husbands' and wives' daily lives. On weekdays, full-time workers spend the majority of their waking hours on paid work and

commuting. Daily schedules of all household members (including children) are largely organized around the working hours of both partners. In broader terms, decisions on working hours can have consequences for the amount of time pressure, which is believed to be negatively correlated with quality of life (Jacobs & Gornick, 2001). The revenues of paid work determine what lifestyle a couple can afford, in what kind of house they can live, etcetera. Consequences of spouses' job levels can even go further: the relative contribution of husband and wife to the household income is argued to partly determine patterns of influence between spouses; more specifically, the spouse who contributes most has the most influence in several household decisions (Sørensen & McLanahan, 1987).

1.3 Theoretical background: homogamy and partner effects

1.3.1 Introduction

Figure 1.2 displays a simplified schematic overview of the theoretical explanations for the association between husbands' and wives' occupational careers, and will be used as the baseline of this theoretical outline. On the right-hand side, the relationship between spouses' occupations is pictured, which is the subject of the first research question. The occupational association is for a large part caused by educational homogamy, and perhaps other forms of homogamy. On the individual level education positively affects occupation, so the positive correlation between spouses' education, intentionally or not, leads to a positive correlation between spouses' occupations (see continuous arrows in Figure 1.2). In this book, I will not pay much attention to arguments about the individual effect since this has been the subject of many studies before and is beyond the couple perspective. The next paragraph will sketch the main theoretical arguments about homogamy because it forms such an important component of the occupational association I am interested in. The main theoretical focus of this book, however, will be on partner effects (the interrupted arrows in Figure 1.2). Attributes of the partner may influence occupational outcomes, and this interest is reflected in the second research question. A theoretical overview of the, partly opposing, ways partners may affect each others' careers is outlined in Section 1.3.3.

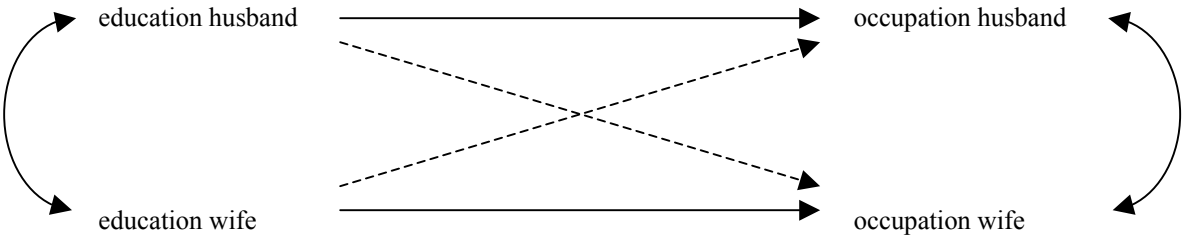


Figure 1.2 Theoretical causal relationships between husband's and wife's education and occupation; homogamy mechanism expressed by continuous arrows, partner effects by interrupted arrows

1.3.2 Homogamy

Homogamy, the similarity between spouses' social characteristics, is the consequence of partner choice mechanisms. Kalmijn (1998) summarizes the main mechanisms behind partner choice that cause homogamy: preferences, third parties, and meeting opportunities. Firstly, partner choice is related to economic and cultural preferences (Kalmijn, 1994). People try to maximize their (chances on) economic well-being, and therefore prefer a spouse with favourable socio-economic resources or prospects. Candidates with the most attractive socio-economic resources cannot reach any higher and select amongst themselves, so that candidates with the least attractive resources end up together too. Moreover, people prefer a partner with similar cultural resources because similarity of values and opinions with respect to important things in life, like raising children, makes a relationship easier to maintain; similarity of interests enables joint activities and life style; and similarity of knowledge leads to conversations on a satisfactory level which, in turn, increase mutual understanding. Secondly, third parties have an interest in homogamous marriages because this, presumably, safeguards the internal group cohesion. Sanctions are used to impose their wish for a homogamous partner choice. Thirdly, meeting opportunities are a prerequisite for mating (Verbrugge, 1977), nicely phrased as "You can't marry an Eskimo, if no Eskimo is around" (Blau & Schwarz, 1984). Potential spouses are often met at school, in the neighbourhood, at work, or in a leisure setting (Kalmijn & Flap, 2001). Such local marriage markets are often socially segregated, which implies that people are most likely to meet potential spouses with social characteristics similar to their own.

Partner choice mechanisms lead to all kinds of homogamy of which educational, occupational, religious, age, and social origin homogamy are studied the most. Over time, a shift has taken place in their importance. Educational homogamy, and perhaps occupational homogamy, have gained importance relative to social origin and religion (Kalmijn, 1991a; 1991b; Uunk, Ganzeboom, & Robert, 1996). This trend is in line with the general shift from ascription to achievement and the process of secularization in modern industrialized societies. The increasing importance of educational homogamy might have consequences for trends in inequality between couples, although the absolute and relative rates of educational homogamy have declined in the Netherlands between 1959 and 1983 (Ultee & Luijkx, 1990); this in contrast to the United States, where a rise in educational homogamy has been reported (Kalmijn, 1991; Mare, 1991).

1.3.3 Partner effects: contradicting hypotheses

Economic perspective

The general economic argument is that people strive for maximization of utility. In his new home economics, Becker (1981) applied this concept to the division of labour within households. The tasks that need to be done in the household are paid and unpaid labour, and task specialization is the way to reach maximum utility. The spouse who is most productive on the labour market should specialize in paid work, which automatically leaves the household and caring tasks to the other spouse. This economic idea has been translated into a more general hypothesis: human

capital or labour market resources of one spouse lower the other spouse's financial incentives to work many hours or to put an effort into his or her career (Bernardi, 1999; Bernasco, 1994; Bernasco, de Graaf, & Ultee, 1998). To put it differently, someone can afford to be non-employed, to work few hours, or to work on a low level if the spouse is very successful on the labour market. In sum, the economic perspective predicts a negative partner effect on labour market careers. Although, the argument can be applied to both labour market participation and job level, it seems probable that spouses have more difficulties in handling a high number of working hours because time is limited. Two high status jobs might be demanding too, but bring in money which can be used to outsource child care and time-consuming household tasks. Therefore, it is predicted that restrictive partner effects are primarily relevant for labour market participation.

Social capital perspective

In contrast, positive partner effects are derived from a social capital perspective. Social capital refers to resources that belong to persons in your network, and which you can use to your benefit (Bourdieu, 1986). The partner is an important person in people's networks, and the strong ties between spouses makes them willing to help each other. In the context of labour market careers, partners can provide each other with information about job openings or opportunities; exploit each others' useful contacts such as potential employers; they can transfer occupational skills, competences and experiences (i.e. transfer of human capital); they can share their knowledge about do's and don'ts (i.e. transfer of cultural capital); or they can try to influence labour market outcomes of the spouse directly by putting in a good word (Bernardi, 1999). The quality of resources as mentioned above is positively related to human capital and occupational success, which means that labour market resources of the partner are expected to have a positive effect on labour market careers (Lin, Vaughn, & Ensel, 1981). It makes sense to expect that social capital can advance job levels more than working hours. Therefore, I expect the positive partner effect to be mainly relevant for job level and to a lesser extent for labour market participation.

Value perspective

Values concerning working women and mothers and the division of labour between men and women have become more liberal over time, but nevertheless, variation in values exists: some couples adhere to traditional values that advocate the breadwinner model, and other couples adhere to modern values that prefer a more equal division of labour between husband and wife. People usually try to harmonize their values and behaviour, but are also sensitive to the values and norms held by their social environment. In the decision process of spouses concerning the arrangement of their working and family lives, the values of both spouses will play a role (perhaps also the values of significant others, like family and friends, but here I want to focus on the influence of the partner) (Van der Lippe & Siegers, 1994). Unfortunately, I will not be able to test the influence of values directly due to lack of appropriate data. However, education is a

strong indicator of values; the highly educated have more modern ideas than the poorly educated (Alwin, Braun, & Scott, 1992; Treas & Widmer, 2000). I therefore assume that the effect of (the partner's) education has a cultural interpretation too.

The kind of behaviour that can be classified as modern differs for men and women. Whereas traditional values emphasize the caring role of women, modern values emphasize the importance of female independence. Modern women, therefore, have the preference to be active on the labour market. Moreover, one could say that full-time work is more modern than part-time work since it displays an even stronger attachment to the labour market. Not only with respect to labour market participation can we distinguish traditional from modern behaviour; with respect to job level, pursuing a successful career as opposed to 'just' having a job can be marked as modern. For men, the story is different. Both traditional and modern men are supposed to have a job, and striving for a high-level job is appreciated by both views. The important difference, however, is that in a modern view men do not only have a working role, but also a caring or family role. This implies that, if the couple has children, a man is stimulated to work part-time and, perhaps, to take a step down if his working career would appear to be incompatible with his duties as a father. The general hypothesis that can be derived from this, is that highly educated husbands will stimulate their wives' working careers, whereas highly educated wives will restrict their husbands' working careers.

1.4 Data

Two data sources form the basis of the empirical studies that follow in the next five chapters. The first source consists of the Labour Force Surveys. These are very large-scale recurring surveys conducted by Statistics Netherlands, which provide the national employment statistics on a yearly basis. They are performed since the 1970s (then called "Arbeidskrachtentelling", since 1990 named "Enquête Beroepsbevolking"), and they contain information on both spouses. Reliability and statistical power are very high. Together, these make the Labour Force Surveys an inevitable source for the longitudinal study of couples' labour market careers. I will merge the data sets from 1977, 1991, 1994, 1995, 1996, 1997, 1998, 2000, 2001, 2002, 2003, 2004, 2005, and 2006, and I will analyse all individual men and women to determine to what extent their labour market outcomes are dependent on characteristics of their partner and their own (and other important factors such as the presence of children). The downside of this data source is the limited range of independent variables; the focus is explicitly on labour market issues.

The second data source is the Family Survey Dutch Population, and I use three waves collected in 1998, 2000, and 2003 by the Department of Sociology at the Radboud University in Nijmegen (de Graaf, de Graaf, Kraaykamp, & Ultee, 1998; 2000; 2003). These are large-scale surveys, repeated in a highly comparable manner. Both spouses are interviewed with the same face-to-face and on-paper questionnaire. The data sets contain very rich information about peoples' life courses and living conditions. One of the main powers of the Family Survey is the retrospective setup. In contrast to the cross-sectional information in the Labour Force Surveys,

respondents and their partners have not only provided information on their present situation, but have constructed, with exact dates, their complete labour market, relational, and reproductive careers (among others). This makes the data extremely suitable for a life course perspective. On top of that, it is possible to reconstruct couples' labour market careers as they were a long time ago, which enables the study of trends since the 1940s. Retrospective questions generally struggle with recalling issues, but since occupations, partners, and children are very salient issues in one's life, and respondents have reported about their own lives instead of the lives of others (De Vries, 2006), I believe the advantages of retrospective questions more than outweigh the disadvantages. A drawback of the Family Survey lies in a possible selection bias. The couples that can be studied are a selective group in the sense that they are (still) together; otherwise the partners would not have been in the interview together. Although this does not mean that only 'happy couples' are observed (a substantial part will presumably divorce in the future), I do not study the life courses of couples that did end their relationship before the moment of the interview. In sum, however, the strengths of the two data sets match the aims of this study very well.

1.5 Structure of the book

The next five chapters present empirical studies of couples' labour market careers. The first general research question of this book about (changes in) the association between spouses' labour market careers is central in chapter 2. The Labour Force Surveys are analysed with the help of log-linear models, resulting in a detailed description of the association between husband's and wife's employment statuses (non-employment, part-time employment, and full-time employment) and between husband's and wife's occupations, distinguishing 47 occupational categories. Educational homogamy is introduced as an important explanation for the occupational association, and the results will show to what extent the occupational association cannot be attributed to educational homogamy and must be the result of other processes; among others partner effects, which will be the subject of the next chapters. A cohort design is used to establish trends in the association.

In chapter 3, I stay with the Labour Force Surveys, but I look into the relationship between husband's and wife's human capital and labour market outcomes. This implies that I shift attention from the overall association between spouses' labour market careers to the dependence of spouses' occupational outcomes on each others' human capital. Multinomial logistic regressions will show to what extent the labour market participation (non-employment, part-time employment, full-time employment) and imputed wage rate (as indicator of occupational success) of husband and wife depend on the education, imputed hourly wage, and working hours of the spouse. Positive relationships point at accumulation of resources within households, whereas negative relationships point at a dampening development. Since positive and negative partner effects might be going on at the same time, I also analyse the total partner effect on income, which is the combination of labour market participation and hourly wage.

From chapter 4 onwards, I explicitly introduce a life course perspective and I will make use of the Family Survey Dutch Population. In chapters 4 and 5, I keep searching for the influence of the partner, but in these chapters, I analyse the influence of the partner on single labour market decisions: to what extent does a change in one's labour market career at any moment during one's career depend on the characteristics of the partner at that particular moment? This is in contrast to chapter 3, in which I examine the 'total' relationship between spouses' characteristics at the moment of interview, which is actually the end result of many decisions in the couple's life till that moment. The dynamic event-history approach of chapters 4 and 5 implies a stronger test of partner effects because the temporal order of events is known: was the situation of the partner a (possible) cause or a (possible) result of the career change? Changes in working hours is the subject of chapter 4, whereas chapter 5 goes into changes in occupational success (i.e. upward and downward mobility). The retrospective data enable to observe career changes from 1940 onwards.

In chapter 6, I am primarily interested in the long term consequences of the workings within a couple. The careers of both spouses develop over the life course, influenced by the human capital of both. The question that will be answered in this chapter, is whether the sum of these developments implies a divergence or a convergence of income between couples. The life course perspective is now used to explicitly study the accumulation of income in the first fifteen years of the relationship.

Finally, chapter 7 presents the main conclusions of this study. Furthermore, I describe the contribution of this study to the literature, and give suggestions for future research.

Chapter 2

The association between husbands' and wives' labour market positions (cohorts 1940 – 1979)*

This chapter (1) describes the association between husbands' and wives' labour market participation and occupations in the Netherlands, (2) explores to what extent the association can be attributed to educational homogamy, and (3) establishes possible trends in that association. We use twelve waves of the Dutch Labour Force Survey (1994-2006), and use log-linear models to analyse the associations between the labour market positions of spouses. We find positive and considerably strong associations, implying that favourable positions are accumulated within households. For couples with children, the association between spouses' labour market participation is negative, which means that they divide paid labour. Education is an important contributor to the occupational association, but still half of the association between spouses' success cannot be attributed to spouses' education. Over birth cohorts, the association between spouses' labour market participation becomes stronger, and the association between spouses' occupational success remains stable.

2.1 Introduction

This chapter investigates the association between husbands' and wives' labour market positions in the Netherlands, specifically the associations between their labour market participation and between their occupations. It is important to investigate these associations since husbands' and wives' labour market participation and occupations are the two major labour market characteristics that affect couples' income positions. The size of the association between spouses' labour market positions has important consequences for the socio-economic inequality between

* This chapter is a slightly different version of the following forthcoming publication: Verbakel, E., Luijkx, R., & de Graaf, P.M. The Association between Husbands' and Wives' Labor Market Positions in the Netherlands. *Research in Social Stratification and Mobility* (2008), doi: 10.1016/j.rssm.2008.05.002.

households. Positive associations imply an accumulation of favourable or unfavourable positions within households (Hout, 1982; Ultee, Dessens & Jansen, 1988). We set out (1) to describe the association between husbands' and wives' labour market participation and occupations in the Netherlands, (2) to explore to what extent the association between spouses' labour market participation can be attributed to educational homogamy, and (3) to establish trends in that association. We use twelve waves of the Dutch Labour Force Survey (1994-2006), with information on 234,688 couples, and employ log-linear models to analyse the associations between the labour market positions of spouses.

The first goal of this chapter is to present a detailed description of the association between the labour market positions of husbands and wives, distinguishing two aspects. The first aspect is the association between the labour market participation of husbands and wives. We distinguish employment and non-employment as well as the number of working hours. Economic theory argues that couples divide paid and unpaid work because of economic maximization (Becker, 1981) and because of time constraints (Van der Lippe & Van Dijk, 2001). Couples divide their time over paid and unpaid work, and do this in such a way that they optimize family income and the quality of family life. The division of labour suggests a negative association between the labour market participation of husbands and wives. Empirical research, however, has sometimes led to opposite conclusions. Spouses of employed persons are more likely to be employed as well, and spouses of the non- or unemployed also tend to be non- or unemployed (Cooke, 1987; Davies, Elias, & Penn, 1994; de Graaf & Ultee, 2000; Halvorsen, 1999; Henkens, Kraaykamp, & Siegers, 1993; Irwin & Morris, 1993; Ultee, Dessens, & Jansen, 1988). The odds ratios that describe this association are substantial, and a European comparative study shows that odds ratios vary between 2.2 in the Netherlands and 5.7 in Belgium (de Graaf & Ultee, 2000). The interest in couples' labour market participation often comes from a social policy point of view: does social security create disincentives to find employment for the spouse of an unemployed person (Dex, Gustafsson, Smith, & Callan, 1995; Irwin & Morris, 1993)?

Our contribution to this line of literature is a further analysis of the association between the labour market participation of spouses by dividing the employed into full-timers and part-timers. This distinction enables us to draw more detailed conclusions than those based on the overall odds ratio of employment versus non-employment. Economic theory may be proven wrong with respect to (non-)employment of spouses, but within dual worker couples the relationship between spouses' working hours might be negative, as is the case when the spouses of full-timers are typically working in part-time jobs. In the Netherlands, as in other Western countries, a wide array of work arrangements is available, including ample opportunities to work part-time (Blossfeld & Hakim, 1997). Indeed, nowadays the most important decision to make, particularly for women, is not between participation and non-participation, but between non-participation and part-time work or between part-time and full-time work.

The second aspect of the description of the association between the labour market positions of husbands and wives refers to the occupations of spouses, and specifically to their job

levels. Job levels are a strong proxy for socio-economic positions. If high-level jobs tend to stick together within couples, and if low-level jobs do so too (i.e. a positive association), then inequality between couples is much higher than if people with high-level jobs typically have a spouse with a low-level job (i.e. a negative association). Despite the widely recognized relevance of the association between spouses' job levels, research that directly links spouses' occupations is relatively scarce. Instead, much attention has been paid to the similarity of spouses' educational achievements that are a proxy for occupation. In studies on spouses' occupations, Hout (1982) and Smits, Ultee, and Lammers (1999) find a positive and strong association between husbands' and wives' occupational statuses (in the United States and in eight European Union countries, including the Netherlands, respectively).

In this chapter we extend this line of literature by modelling a detailed husband by wife cross-classification of occupations. We will employ a scheme with 47 occupational categories. The log-linear modelling of the 47 by 47 table will contribute to a better understanding of the complex relationship between the occupations of husbands and wives. We will investigate both the tendency of spouses to be employed in the same occupational category and, if they are not working in the same occupational category, we will investigate the association between the socio-economic statuses of their occupations.

The second goal in this chapter is to find out to what extent the association between spouses' labour market positions can be ascribed to educational homogamy. Extensive literature on educational homogamy has produced the consistent finding that there is a strong positive association between spouses' educational attainments (Kalmijn, 1998; Mare, 1991; Smits, Ultee, & Lammers, 1998; Ultee & Luijkx, 1990). Since education has strong effects on labour market participation as well as occupational success, the occupational association between spouses could be entirely the by-product of educational homogamy. There are sound arguments why the association between the occupations of spouses is more than just the result of educational homogamy and the effects of schooling on career opportunities. Firstly, not only educational attainment, but also occupational status affects the marital selection process (Kalmijn, 1994). Preferences and restrictions are at work here, leading to similarities in occupational status, and resulting in occupational homogamy on top of educational homogamy. Secondly, there are several plausible mechanisms that affect the association between the labour market positions of spouses during marriage net of the consequences of educational and occupational homogamy. Economic theory predicts that households follow the strategy of income maintenance, implying that, when one spouse is not doing well on the labour market, this will be counterbalanced by more career activity of the other spouse (Lundberg, 1985; Maloney, 1987). As a consequence, the association between spouses' labour market positions is weaker than predicted by educational and occupational homogamy. In contrast, social capital theory argues that spouses can take advantage of each other's labour market resources (Bernasco, de Graaf, & Ultee, 1998), which would result in a stronger association than predicted by homogamy.

The relevance of the answer to the question to what extent the occupational association cannot be fully attributed to educational homogamy is twofold. Firstly, assuming that households' social positions are more directly measured by couples' occupations than by their education, the conclusion that the occupational association is more than educational homogamy would justify and favour a focus on couples' occupations in social inequality research. Secondly, this conclusion would encourage us to study alternative factors that affect the occupational association in subsequent chapters.

The third goal in this chapter is to explore historical developments. We are not only interested in the association between the labour market positions of husbands and wives per se, but also in trends in this association. An increasing positive association between the labour market participation and job levels of spouses implies increasing inequalities on the household level. During the second half of the twentieth century, important economic and cultural developments have taken place in Western countries, among which the emergence of non-traditional gender roles (Treas & Widmer, 2000), the rapid increase in female labour market participation (de Graaf & Vermeulen, 1997), and declining gender differences in educational achievement (Shavit & Blossfeld, 1993). All of these are supposedly strongly related to couples' labour market decisions. To assess historical change, we will apply a cohort design, describing the association for couples born between 1940 and 1979.

In summary, we will answer the following three research questions:

1) To what extent are (a) labour market participation and (b) occupations of husbands and wives in the Netherlands related?
2) To what extent can the relationships between (a) labour market participation and (b) occupations of husbands and wives be attributed to educational homogamy?
3) Do the relationships between (a) labour market participation and (b) occupations of husbands and wives differ between birth cohorts?

In the next section, we will introduce the data and give descriptions of couples' labour market participation and occupations. We will explain the models and show the results with respect to the association between husbands' and wives' labour market participation in Section 2.3 and between their occupations in Section 2.4. The results of this chapter are summarized in Section 2.5.

2.2 Data

We will use twelve waves of the Labour Force Surveys (1994-2006, except the 1999 survey because it has no information on children) collected by Statistics Netherlands. These data are representative of the Dutch non-institutionalized population of 15 years and older. Response rates are about 60 per cent. The Labour Force Surveys offer detailed occupational and educational information on large numbers of respondents and their spouses. This large statistical power is essential for answering our research questions. We selected couples in which both spouses were between 25 and 55 years old at the moment of the interview. Furthermore, we removed all cases

with missing information from the analysis. This resulted in 234,688 couples and 131,244 couples in which both spouses have a job of minimally 12 hours a week at the moment of the interview.

2.2.1 Labour market participation, occupation, and control variables

Labour market participation of husband and wife has been defined according to the categorization of Statistics Netherlands: non-employed, 1-11 working hours, 12-19 working hours, 20-34 working hours, and 35 hours or more a week. Occupations are classified into 47 occupational categories based on the two-digit Standard Occupational Classification 1992 of Statistics Netherlands. This categorization includes information on the level of occupation (low, medium, high, and academic jobs, based on the educational requirements of jobs) in addition to the field of occupation. Detailed information on the 47 occupational categories is presented in Appendix A.

In this study, we include four variables that may affect the labour market positions of husbands and wives, and the association between their labour market positions: birth cohort, family stage, age group, and educational attainment. We compute the average birth year of both spouses, which ranges from 1940 through 1979, and construct four birth cohorts: 1940-1949, 1950-1959, 1960-1969, and 1970-1979. We analyse historical developments in the association between husbands' and wives' labour market positions by comparisons between these birth cohorts.

Family stage is categorized in two groups: couples with children and couples without children. Note that the childless couples can be couples who do not have a child yet, and couples whose children have left the household (empty nests). We lack the necessary information to distinguish between these two groups. Other data show that most couples in which both spouses are between 25 and 55 years old and who are living without children never had children (77 per cent), and thus that 23 per cent of these couples are in the empty nest situation (Family Survey Dutch Population 2003, own calculations). In the analysis of spouses' labour market participation, family stage will be used to cover life course developments, which must be controlled because they are correlated with birth cohort.

The average age of the couples is categorized in two age groups: couples younger than 40 years and couples of 40 years or older. In the analysis of occupation we will use age groups to control for life course development because occupational status is more dependent on age than on family stage.

Educational attainment has been measured in 15 categories, using both vertical and horizontal categorization. Vertically, education ranges from primary education to a university degree, and horizontally, we distinguish general, technical, economic, and care-taking sectors. We have chosen for this large number of educational categories because we want to have optimal control for educational homogamy in our multivariate analysis of the association between spouses' labour market positions. This allows us to produce reliable estimates of the remaining association between spouses' labour market positions after the effects of educational homogamy

have been controlled for. Table 2.1 shows descriptive values of the control variables. In the next section, we will first give a description of couples' labour market participation and occupational levels in our data.

Table 2.1 Descriptive values of independent and control variables for all couples and for dual worker couples

	all couples				dual worker couples			
	N	%	N	%	N	%	N	%
cohort								
1940-1949	25,731	11.0			9,852	7.5		
1950-1959	84,632	36.1			44,026	33.5		
1960-1969	94,113	40.1			55,322	42.2		
1970-1979	30,212	12.9			22,044	16.8		
family stage								
no child in household	59,402	25.3			42,916	32.7		
child in household	175,286	74.7			88,328	67.3		
age								
younger than 40 years	119,926	51.1			71,945	54.8		
40 years or older	114,762	48.9			59,299	45.2		
education	**husbands**		**wives**		**husbands**		**wives**	
primary education	18,908	8.1	20,655	8.8	6,534	5.0	5,743	4.4
intermediate secondary education (mavo)	10,431	4.4	20,443	8.7	5,523	4.2	9,680	7.4
low vocational education - technical (lbo)	31,828	13.6	3,131	1.3	14,490	11.0	1,213	0.9
low vocational education - economic (lbo)	2,441	1.0	7,246	3.1	1,323	1.0	3,209	2.4
low vocational education - care-taking (lbo)	2,171	0.9	25,517	10.9	1,073	0.8	8,971	6.8
high secondary education (havo/vwo)	10,382	4.4	15,755	6.7	6,208	4.7	9,064	6.9
intermediate vocational education - technical (mbo)	54,987	23.4	7,980	3.4	30,531	23.3	4,522	3.4
intermediate vocational education - economic (mbo)	23,769	10.1	28,338	12.1	14,128	10.8	18,771	14.3
intermediate vocational education - care-taking (mbo)	13,652	5.8	53,359	22.7	8,469	6.5	30,790	23.5
high vocational education - technical (hbo)	12,803	5.5	1,834	0.8	7,572	5.8	1,298	1.0
high vocational education - economic (hbo)	13,762	5.9	8,018	3.4	9,006	6.9	6,176	4.7
high vocational education - care-taking (hbo)	16,175	6.9	29,425	12.5	10,961	8.4	21,441	16.3
university education - technical (wo)	6,432	2.7	1,380	0.6	4,049	3.1	1,041	0.8
university education - economic (wo)	7,925	3.4	3,068	1.3	5,203	4.0	2,583	2.0
university education - care-taking (wo)	9,022	3.8	8,539	3.6	6,174	4.7	6,742	5.1
total	234,688	100	234,688	100	131,244	100	131,244	100

Source: Labour Force Surveys, 1994-2006

2.2.2 Description of husbands' and wives' labour market participation

Table 2.2 shows the distribution of work arrangements of husbands and wives, and in Table 2.3 this distribution is broken down by birth cohort and family stage. The Netherlands are particularly well-known for their high number of part-time working women; indeed, the 'Dutch model' consisting of a full-time working husband and a part-time working wife is the most popular arrangement (47.7 per cent), both for couples with children (51.6 per cent) and couples without children (36.4 per cent). Within female part-time jobs, large part-time jobs are favoured the most, and there has been a further shift to large part-time jobs over cohorts. Full-time jobs, however, have not become more popular among mothers. Note that cohort change might be overestimated

since the average age of the couples in the youngest cohort is lower than the average age of the couples in the oldest cohort.

On average, a quarter of the Dutch couples have a breadwinner arrangement with a full-time working husband and a non-working wife. Whereas the breadwinner model is rather common in the oldest cohort both for couples with or without children (38.9 per cent versus 33.3 per cent), this arrangement has lost its attractiveness, especially for childless couples in the youngest cohort (5.5 per cent). In turn, they predominantly consist of two full-timers (51.9 per cent), whereas couples with children still rarely decide to both work full-time (around 6 per cent in all cohorts). Variety between couples with and without children is predominantly due to different employment behaviour of the mothers: they scale back, whereas fathers work as much as childless husbands. Work patterns hardly differ between men. International comparisons show that Dutch men more often work part-time than others (Delsen, 1998), though our data show that this proportion is no higher than eight per cent.

Equal division of labour between husband and wife is more widespread in younger cohorts than in older cohorts, but only where childless couples are concerned: one out of five childless couples born in the forties have an equal division of paid labour compared to over half of the couples born in the seventies. Strikingly, this development is not observed in couples with family responsibilities: in the older as well as in the younger cohorts, only one out of eight husbands and wives with children have the same level of labour market participation. The great majority of the rest have an arrangement in which the husband works more hours than the wife.

Table 2.2 Distribution of husbands' and wives' labour market participation (percentages)

	wife							
husband	non-employed	1-11 hours	12-19 hours	20-34 hours	35+ hours	total		
non-employed	3.1	0.3	0.4	1.2	1.1	6.1	*diagonal*	18.9
1-11 hours	0.2	0.1	0.0	0.2	0.1	0.6	*h>w*	76.4
12-19 hours	0.1	0.0	0.1	0.2	0.1	0.5	*w>h*	4.7
20-34 hours	1.4	0.4	0.8	2.9	1.0	6.5		
35+ hours	25.7	9.7	12.1	25.9	12.8	86.3		
total	30.5	10.6	13.3	30.4	15.2	100	*N=234,688*	

Source: Labour Force Surveys, 1994-2006; N=234,688

Table 2.3 Distribution of husbands' and wives' labour market participation by birth cohort and family stage (percentages)

	COUPLES WITHOUT CHILDREN								COUPLES WITH CHILDREN							
	wife								wife							
husband	non-employed	1-11 hours	12-19 hours	20-34 hours	35+ hours	total			non-employed	1-11 hours	12-19 hours	20-34 hours	35+ hours	total		
all couples																
non-employed	3.1	0.3	0.4	1.5	1.9	7.2	*diagonal*	39.6	3.1	0.4	0.4	1.1	0.8	5.7	*diagonal*	11.9
1-11 hours	0.2	0.1	0.0	0.2	0.2	0.8	*h>w*	53.4	0.2	0.0	0.0	0.1	0.1	0.5	*h>w*	84.2
12-19 hours	0.2	0.0	0.1	0.2	0.2	0.7	*w>h*	7.0	0.1	0.0	0.1	0.2	0.1	0.5	*w>h*	3.9
20-34 hours	1.1	0.3	0.4	2.7	2.0	6.5			1.5	0.5	0.9	3.0	0.7	6.5		
35+ hours	14.6	3.5	4.7	28.2	33.8	84.9			29.5	11.8	14.6	25.2	5.7	86.8		
total	19.2	4.3	5.6	32.8	38.1	100	*N=59,402*		34.3	12.7	16.0	29.6	7.4	100	*N=175,286*	
cohort 1940-1949																
non-employed	7.9	0.9	0.8	1.8	1.4	12.8	*diagonal*	19.8	5.3	0.7	0.6	1.3	0.8	8.7	*diagonal*	13.2
1-11 hours	0.5	0.2	0.1	0.3	0.2	1.4	*h>w*	73.5	0.4	0.1	0.1	0.2	0.1	0.9	*h>w*	82.3
12-19 hours	0.4	0.1	0.1	0.2	0.1	1.0	*w>h*	6.8	0.2	0.1	0.1	0.1	0.1	0.6	*w>h*	4.5
20-34 hours	2.5	0.6	0.6	1.7	0.9	6.3			2.2	0.5	0.6	1.4	0.5	5.1		
35+ hours	33.3	8.3	7.6	19.6	9.9	78.6			38.9	11.7	9.0	18.7	6.4	84.7		
total	44.6	10.1	9.2	23.6	12.5	100	*N=9,880*		47.0	13.1	10.3	21.8	7.9	100	*N=15,851*	
cohort 1950-1959																
non-employed	4.1	0.4	0.6	2.3	2.2	9.6	*diagonal*	27.2	2.9	0.4	0.4	1.3	1.0	6.0	*diagonal*	12.1
1-11 hours	0.2	0.0	0.0	0.3	0.3	0.9	*h>w*	64.3	0.2	0.1	0.0	0.2	0.1	0.6	*h>w*	83.3
12-19 hours	0.3	0.1	0.1	0.3	0.2	0.9	*w>h*	8.5	0.1	0.0	0.1	0.2	0.1	0.6	*w>h*	4.5
20-34 hours	1.6	0.5	0.8	3.9	1.8	8.5			1.5	0.5	0.9	2.9	0.8	6.6		
35+ hours	19.2	4.9	7.5	29.4	19.2	80.1			29.3	12.3	13.2	25.2	6.2	86.3		
total	25.3	5.9	9.0	36.2	23.7	100	*N=15,385*		34.0	13.4	14.7	29.7	8.2	100	*N=69,247*	
cohort 1960-1969																
non-employed	1.6	0.2	0.1	1.1	2.1	5.1	*diagonal*	48.3	2.8	0.2	0.3	0.9	0.7	4.9	*diagonal*	11.2
1-11 hours	0.1	0.0	0.0	0.1	0.2	0.5	*h>w*	45.1	0.1	0.0	0.0	0.1	0.1	0.4	*h>w*	85.5
12-19 hours	0.0	0.0	0.0	0.1	0.2	0.4	*w>h*	6.5	0.1	0.0	0.0	0.1	0.1	0.4	*w>h*	3.3
20-34 hours	0.7	0.1	0.2	2.7	2.4	6.2			1.3	0.5	0.9	3.4	0.7	6.8		
35+ hours	8.4	1.8	3.0	30.8	44.0	88.0			28.8	11.9	16.4	25.4	5.0	87.5		
total	10.8	2.1	3.4	34.8	48.9	100	*N=20,101*		33.1	12.7	17.7	30.0	6.6	100	*N=74,012*	
cohort 1970-1979																
non-employed	0.7	0.1	0.1	1.0	1.7	3.6	*diagonal*	54.7	3.1	0.2	0.3	1.0	0.6	5.2	*diagonal*	12.7
1-11 hours	0.1	0.1	0.0	0.1	0.3	0.6	*h>w*	39.2	0.2	0.0	0.1	0.1	0.1	0.4	*h>w*	84.2
12-19 hours	0.1	0.0	0.0	0.1	0.4	0.6	*w>h*	6.1	0.1		0.1	0.1	0.1	0.4	*w>h*	3.1
20-34 hours	0.4	0.1	0.2	2.0	2.2	5.0			1.2	0.4	0.9	3.6	0.5	6.7		
35+ hours	5.5	1.2	2.2	29.4	51.9	90.2			23.9	9.3	17.7	30.5	5.9	87.3		
total	6.7	1.5	2.5	32.7	56.6	100	*N=14,036*		28.5	9.9	19.1	35.3	7.3	100	*N=16,176*	

Source: Labour Force Surveys, 1994-2006; N=234,688

2.2.3 Description of husbands' and wives' occupations

The couples we observe in Tables 2.4 and 2.5 are dual earner couples only. In our data 55.9 per cent of all couples consist of two earners. Not included in the descriptions and analyses on spouses' occupations are couples in which both spouses are non-employed (3.1 per cent), couples in which only the wife is non-employed (27.4 per cent), and couples in which only the husband is non-employed (3.0 per cent). Since the Dutch definition of the labour force excludes people who work less than 12 hours a week, persons with small part-time jobs are not asked detailed

occupational information. We therefore do not have information on the couples in which both spouses work less than 12 hours (0.1 per cent), couples in which only the wife works less than 12 hours (10.5 per cent), and couples in which only the husband works less than 12 hours (0.5 per cent).

It is important to note that dual earner couples are a selective sample with respect to their occupational achievement. Persons who have a job but whose spouse does not have a job (or has a job with less than 12 working hours), have a lower average socio-economic status than persons with a working spouse. Husbands with a non-employed wife have an average status of 47.0, which is significantly lower ($p<.01$) than husbands with a working wife (average status is 50.0). Wives with non-employed husbands have an average occupational status of 46.7, which is lower than the average of 49.2 for wives of employed husbands ($p<.01$). These differences are substantial, but we think that they will not have implications for our analysis of the association between spouses' occupations.

Table 2.4 Distribution of husbands' and wives' occupational level (percentages, dual worker couples only)

	wife						
husband	low	medium	high	academic	total		
low	10.6	9.0	2.3	0.4	22.2	*diagonal*	43.0
medium	12.7	20.7	7.1	1.3	41.9	*h>w*	34.9
high	4.0	10.0	8.8	2.1	24.9	*w>h*	22.1
academic	1.0	3.3	3.9	2.8	11.0		
total	28.3	43.1	22.0	6.6	100	*N=131,244*	

Source: Labour Force Surveys, 1994-2006; N=131,244

Table 2.4 displays the cross-classification of husbands' and wives' level of occupation, and Table 2.5 shows this cross-classification by birth cohort and age group. Note that we now use age groups to control for life cycle effects because occupational status is more dependent on age than on family stage. Generally, medium-level jobs appear to be most common both for men and women. About ten per cent of the dual earner couples in the Netherlands have two low-level jobs, and less than three per cent of the couples have two jobs on the academic level.

Table 2.4 also shows that in most couples the husband has a higher level of occupation than the wife, though 22.1 per cent of all wives in dual earner couples have a higher job level than their husbands. In Table 2.5 we can see that wives catch up in this respect: there is an increasing proportion of couples in which the wife has a higher job level than her husband. For couples between the ages of 25 and 40 (which are observed in the youngest three cohorts and not in the oldest cohort) the proportion increases from 20.3 to 29.0 per cent, and for couples between the ages of 40 and 55 (which are only observed in the oldest three cohorts) from 13.2 to 22.1 per cent. Increasing human capital of women is the main force behind this development.

Table 2.5 Distribution of husbands' and wives' occupational level by birth cohort and age group (percentages, dual worker couples only)

	COUPLES AGED 25-39							COUPLES AGED 40-55						
	wife							wife						
husband	low	medium	high	academic	total			low	medium	high	academic	total		
all couples														
low	10.2	10.5	2.6	0.4	23.7	*diagonal*	43.7	11.2	7.1	1.8	0.3	20.4	*diagonal*	42.0
medium	11.5	22.5	7.9	1.6	43.5	*h>w*	31.0	14.2	18.6	6.1	1.1	39.9	*h>w*	39.8
high	3.0	9.7	8.4	2.2	23.3	*w>h*	25.3	5.2	10.4	9.2	1.9	26.7	*w>h*	18.2
academic	0.7	2.9	3.2	2.7	9.4			1.4	3.9	4.7	3.0	13.0		
total	25.3	45.7	22.1	6.9	100	*N=71,945*		32.0	39.9	21.8	6.3	100	*N=59,299*	
cohort 1940-1949														
low								11.4	5.1	1.1	0.2	17.8	*diagonal*	40.4
medium								17.4	17.7	4.8	0.8	40.7	*h>w*	46.3
high								7.1	10.2	8.2	1.2	26.8	*w>h*	13.2
academic								1.9	4.2	5.5	3.1	14.7		
total								37.7	37.3	19.7	5.3	100	*N=9,852*	
cohort 1950-1959														
low	10.4	8.4	2.0	0.3	21.2	*diagonal*	43.7	11.2	7.0	1.9	0.3	20.4	*diagonal*	42.2
medium	13.0	20.7	6.8	1.1	41.5	*h>w*	36.0	14.0	18.3	6.2	1.1	39.5	*h>w*	39.5
high	3.9	10.2	9.8	1.7	25.5	*w>h*	20.3	5.1	10.3	9.6	1.9	27.0	*w>h*	18.3
academic	0.8	3.8	4.4	2.9	11.8			1.4	4.0	4.8	3.1	13.2		
total	28.1	43.1	22.9	5.9	100	*N=6,239*		31.7	39.5	22.5	6.4	100	*N=37,787*	
cohort 1960-1969														
low	10.5	10.5	2.3	0.3	23.7	*diagonal*	44.1	10.9	9.0	2.2	0.5	22.5	*diagonal*	42.8
medium	11.9	23.0	7.3	1.4	43.7	*h>w*	31.8	12.1	20.2	6.8	1.3	40.5	*h>w*	35.1
high	3.0	10.0	8.0	2.2	23.1	*w>h*	24.1	3.8	11.1	8.8	2.3	26.0	*w>h*	22.1
academic	0.7	3.1	3.1	2.6	9.5			1.1	3.2	3.9	2.8	11.0		
total	26.1	46.6	20.8	6.5	100	*N=43,662*		27.9	43.5	21.6	6.9	100	*N=11,660*	
cohort 1970-1979														
low	9.4	11.2	3.4	0.6	24.5	*diagonal*	43.1							
medium	10.3	22.1	9.4	1.9	43.8	*h>w*	27.9							
high	2.6	9.0	8.7	2.6	23.0	*w>h*	29.0							
academic	0.5	2.2	3.1	2.8	8.7									
total	22.9	44.6	24.6	7.9	100	*N=22,044*								

Source: Labour Force Surveys, 1994-2006; N=131,244

2.3 The association between husbands' and wives' labour market participation

2.3.1 Models

The association between spouses' labour market participation cannot be derived from the descriptive tables as presented in the prior section for its dependence on the margins. Therefore, we will rely on odds ratios to express the association between husbands' and wives' labour market participation. In order to answer our three research questions, we will present odds ratios that are not controlled and controlled for husband's and wife's education, and that are broken down by cohort and family stage. We use log-linear models that are estimated with the software program LEM (Vermunt, 1997).

We start with simply estimating the parameters of a saturated model with two variables: husband's labour market participation (Ph) and wife's labour market participation (Pw), which gives us the overall odds ratio for all couples. These odds ratios are not controlled for educational

homogamy. The pattern of association will be presented by four odds ratios, contrasting (a) non-employment and employment, (b) non-employment and part-time employment, (c) non-employment and full-time employment, and (d) part-time employment and full-time employment.

Before adding the controls for spouses' education, we first add birth cohort (C) and family stage (F) and estimate the parameters of a saturated model with these four variables. This model reproduces the net association between the spouses' labour market participation controlled for cohort and family stage. The odds ratios for all couples and the odds ratios broken down by cohort and family stage are shown in the upper panel of Table 2.6. The left column (labelled all couples) presents the four selected odds ratios between the labour market participation of spouses broken down by family stage but not by cohort. These results come from a model in which the table is collapsed over cohorts. The upper row for each contrast (labelled total) presents the odds ratios broken down by cohort, but not by family stage, based on a model in which the table is collapsed over the two categories of family stage.

Finally, we add controls for husband's and wife's education to this model (Eh and Ew). We estimate all interactions of the four-way tables [PhPwCF] and [EhEwCF], which ensures that educational homogamy is included in the model together with variations in homogamy over the life cycle and over cohorts; we include [EhPhCF] and [EwPwCF] to control for the individual level associations between education and labour market participation (with variations of these associations over cohort and family stage); and we add [EhPwCF] and [EwPhCF], which control for cross-over effects of the educational attainment of one spouse to the labour market participation of the other spouse (and again variations). Figure 2.1 gives a schematic representation of the assumed causal relationships between husbands' and wives' schooling and labour market participation (for simplicity reasons, cohort and age are not included in the diagram). In short, this model presents the association between spouses' labour market participation with controls for the by-product of educational homogamy (continuous arrows) and educational cross-over effects (interrupted arrows).

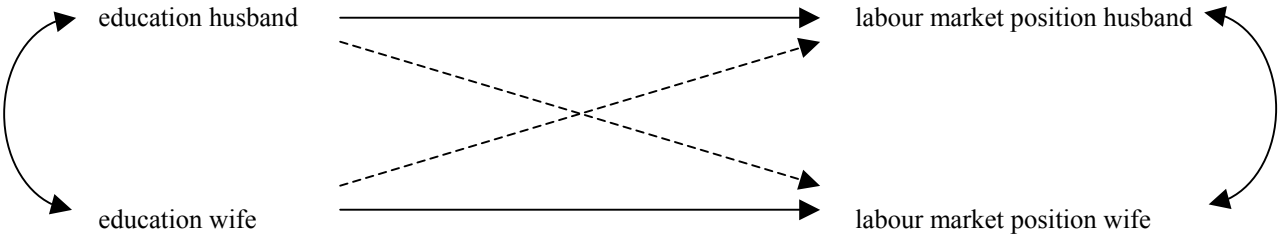


Figure 2.1 Causal diagram with husband's and wife's education and labour market position; by-product expressed by continuous arrows, partner effects by interrupted arrows

2.3.2 Results

Firstly, we discuss the odds ratios that are not controlled for spouses' education, which are displayed in the upper panel of Table 2.6. The odds ratios validate earlier research that there is a positive association between the (non-)employment of husbands and wives. On average, wives of non-employed men have a 2.46 higher odds to be non-employed than employed when compared to wives of employed men. The association between non-employment and employment is particularly strong when we look at part-time employment (odds ratio is 4.23 on average), and smaller when we look at full-time employment (odds ratio is 1.44 on average). It is interesting to note that there is no association between part-time employment and full-time employment for all couples together, as a result of two opposite associations: the association is positive for couples without children and negative for couples with children. This resembles typical work arrangements: both spouses in couples without children tend to work in full-time jobs (odds ratio is 1.53 on average), whereas the working arrangements of couples with children are often one part-time job and one full-time job (odds ratio is 0.61 on average). In other words, economic theory that predicts a negative association between spouses' working hours only finds support among dual worker couples with children; it is proven wrong when it comes to non-employment and employment and where childless couples are concerned.

In the lower panel of Table 2.6, we present an answer to the question to what extent the association between spouses' labour market participation is explained by educational homogamy. The evidence for the explanatory power of educational homogamy is mixed. The overall odds ratio between non-employment and employment, for example, drops from 2.46 to 1.86, which means that 24 per cent of the association is explained. The positive odds ratio between non-employment and full-time employment disappears after controlling for education. For couples with children, however, this odds ratio becomes more negative; apparently, educational homogamy suppressed the association. The reason for this is that highly educated couples have a relatively high tendency to be dual full-time couples (Van Gils & Kraaykamp, 2008), also when they have children, though to a much lesser extent. The association between part-time and full-time employment of husband and wife seems to be not so much a by-product of educational homogamy; the odds ratios do not differ much between the two panels.

Finally, for conclusions about historical developments in the association between spouses' labour market participation, we look at the four far-most columns. In general, the association between husbands' and wives' labour market participation increases over birth cohorts, also when we control for couples' family stage. This indicates that spouses born in the seventies are becoming more similar to each other with regard to labour market participation than spouses born in the forties. It is clear that this has important consequences for social stratification; specifically, this entails that inequality between households is increasing.

Table 2.6 Observed odds ratios of husbands' and wives' labour market participation by birth cohort and family stage, not controlled and controlled for education

not controlled for education [a]		**all couples**	**1940-1949**	**1950-1959**	**1960-1969**	**1970-1979**
non-employed v. employed	total	2.46	1.96	1.89	2.80	3.85
	no child	3.55	2.22	2.39	4.19	3.76
	child	2.34	1.81	1.85	2.80	3.89
non-employed v. part-time	total	4.23	2.40	3.49	6.35	5.73
	no child	3.77	2.58	3.49	5.21	3.22
	child	4.65	2.26	3.51	6.68	7.14
non-employed v. full-time	total	1.44	1.27	0.81	1.39	3.11
	no child	3.68	1.70	1.82	3.89	4.00
	child	0.74	1.04	0.64	0.71	1.18
part-time v. full-time	total	0.99	0.78	0.73	1.01	1.41
	no child	1.53	0.89	1.21	1.54	1.48
	child	0.61	0.73	0.61	0.55	0.81
controlled for education [b]						
non-employed v. employed	total	1.86	1.64	1.55	2.02	2.51
	no child	2.62	1.93	1.98	3.17	2.89
	child	1.77	1.47	1.50	1.99	2.48
non-employed v. part-time	total	2.65	1.82	2.20	3.41	3.27
	no child	2.81	2.11	2.63	3.95	2.85
	child	2.58	1.60	2.10	3.36	3.44
non-employed v. full-time	total	1.01	1.03	0.69	0.99	1.92
	no child	2.53	1.47	1.41	2.72	3.23
	child	0.62	0.80	0.56	0.61	0.84
part-time v. full-time	total	1.10	0.83	0.81	1.14	1.70
	no child	1.57	0.92	1.34	1.66	1.54
	child	0.70	0.79	0.67	0.63	1.04

[a] *[PhPwCF], with Ph=Labour market participation husband, Pw=Labour market participation wife, C=birth cohort, F=family stage*
[b] *[PhPwCF, EhEwCF, EhPhCF, EwPwCF, EhPwCF, EwPhCF], with Ph=Labour market participation husband, Pw=Labour market participation wife, C=birth cohort, F=family stage, Eh=Education husband, Ew=Education wife*
Source: Labour Force Surveys, 1994-2006; N=234,688

2.4 The association between husbands' and wives' occupations

We show the association between spouses' occupations first in a descriptive manner by means of odds ratios and then in a more extended form (that also includes controls for age and education) by showing results of log-linear modelling. Table 2.7 presents observed odds ratios for spouses' job levels, categorized in low, medium, high, and academic. The first observation is that all odds ratios are larger than one, which implies that favourable labour market positions are accumulated within households. The strength of the association is considerable, for example, compared to a woman with a medium-level job, a woman with a high job level is 2.56 times as likely to be married to a husband with a high job level than to a husband with a medium job level. Also, a woman with an academic-level job is more than 13 times as likely to have an academic husband

than a husband with a medium-level job, when compared to a woman with a medium-level job. The odds ratios are higher when the distance in occupational level becomes larger. Furthermore, the results in Table 2.7 suggest that the association in spouses' job levels is stronger at higher levels than at lower levels (3.07 for high versus academic and 1.93 for low versus medium), which implies that there is more openness in the lower strata.

The second observation based on the odds ratios presented in Table 2.7 is that there seems to be a downward trend in the association between spouses' occupational levels over birth cohorts. The odds ratios that refer to adjacent categories (low versus medium, medium versus high, and high versus academic) have become weaker over time. We must be cautious with drawing strong conclusions based on these odds ratios because they do not control for the different age compositions of the cohorts in our data set. We will take care of this in the log-linear models that will be discussed below.

Table 2.7 Observed odds ratios of husbands' and wives' occupational level (dual worker couples only)

	all couples	1940-1949	1950-1959	1960-1969	1970-1979
low v. medium	1.93	2.27	2.08	1.94	1.81
medium v. high	2.56	3.00	2.80	2.48	2.28
high v. academic	3.07	3.75	3.30	2.99	3.12
low v. high	10.35	11.41	11.35	11.86	9.19
low v. academic	82.81	115.68	81.12	97.57	90.90
medium v. academic	13.23	15.75	13.35	13.60	14.49

Source: Labour Force Surveys, 1994-2006; N=131,244

2.4.1 Models

We will first explain the log-linear models before turning to the results. We model the six-way table of husband's and wife's educational attainment, birth cohort, age, and husband's and wife's occupation (15x15x4x2x47x47) with log-linear scaled row-column association models (Hout, 1984). These models provide a single parameter for the association between husbands' and wives' occupational statuses, denoted as (phi). We scale each of the 47 occupational categories with the standardized average ISEI score of all detailed occupations in that particular category. For this purpose we use the International Socioeconomic Index, as constructed by Ganzeboom, de Graaf, and Treiman (1992). Detailed information on the 47 occupational categories and its corresponding mean and standardized ISEI score is presented in Appendix A. The ISEI-scaling approach assumes a symmetric relationship between the occupations of husbands (Oh) and wives (Ow), which means that the relative propensity for a couple with occupations 1 and 2 is equal to the relative propensity for a couple with occupations 2 and 1, given the different marginal distributions for husbands and wives. The advantage of using the ISEI-scaling is that the association parameter can be interpreted in terms of spouses' occupational levels. In addition, the association parameters can be compared straightforwardly between models and cohorts.

In order to provide a detailed answer to our first research question about the association between spouses' occupations, we use log-linear modelling to break down the occupational

association in several elements, as is the practice in much research on intergenerational occupational mobility (Hout, 1983). We consider three aspects of the association between husbands' and wives' occupations, which will be modelled in three subsequent steps: (a) a general association; (b) a tendency that both partners have occupations on a low, medium, high, or academic level (four level-diagonal); and (c) a tendency that both partners have occupations in the exact same occupational category (47 cells-diagonal).

Our first model estimates one parameter for the association between husband's and wife's occupations. The four-way association between both spouses' educational attainments, birth cohort, and age [EhEwCA], and the three-way associations between birth cohort, age, and occupation (of husband and wife) [CAOh] and [CAOw] are saturated, which implies that we allow for all interactions between cohort, age, and spouses' education, and between cohort, age, and occupation. In this model, we define no relationship between educational attainment and occupation, which means that the association between spouses' occupations is not controlled for educational homogamy. In formula:

$$\ln F_{ijklmn} = \lambda + [...] + \lambda_{ijkl}^{EhEwCA} + \lambda_{klm}^{CAOh} + \lambda_{kln}^{CAOw} + \varphi\, Oh_m Ow_n \qquad (1)$$

for all i = 1,…,15; j = 1,…,15; k = 1,…,4; l = 1,2; m = l,…,47; n = 1,…,47
[...] all lower order terms are included, but only highest order terms are shown in (1)

In the second step, this model is extended with diagonal effects. Model 2 includes four diagonal parameters for the occupational levels (1=low, 2=middle, 3=high, 4=academic), which are areas in the square table that represent the same job level (see appendix B for a presentation). In the final step, we also include parameters for all 47 diagonal cells in Model 3; the contrast with Model 2 will inform us whether the association between spouses' occupations is not covered by the four level-diagonal model. In formula, Models 2 and 3 are as follows:

$$\ln F_{ijklmn} = \lambda + [...] + \lambda_{ijkl}^{EhEwCA} + \lambda_{klm}^{CAOh} + \lambda_{kln}^{CAOw} + \varphi\, Oh_m Ow_n + \delta_{qs} \qquad (2)$$

$$\ln F_{ijklmn} = \lambda + [...] + \lambda_{ijkl}^{EhEwCA} + \lambda_{klm}^{CAOh} + \lambda_{kln}^{CAOw} + \varphi\, Oh_m Ow_n + \delta_{qs} + \delta_{mn} \qquad (3)$$

for all i = 1,…,15; j = 1,…,15; k = 1,…,4; l = 1,2; m = l,…,47; n = 1,…,47; q = 1,…4; s = 1,…4

$$\delta_{qs} \begin{cases} \delta_{qs} \text{ if } q = s \\ 0 \text{ if otherwise} \end{cases}$$

$$\delta_{mn} \begin{cases} \delta_{mn} \text{ if } m = n \\ 0 \text{ if otherwise} \end{cases}$$

[...] all lower order terms are included, but only highest order terms are shown in (2) and (3)

In order to provide an answer to our second research question, we test to what extent the association between spouses' occupations is the result of educational homogamy. For that purpose, we add parameters for the saturated relationship between the individual effects and cross-effects of husband's and wife's education and occupation [EhOh, EwOw, EhOw, EwOh] to Models 1 to 3 and test how much of the original association as estimated in all prior models is explained. Model 1, including the mechanism of educational homogamy, is presented in formula 4; Models 2 and 3 are extended in the same way.

$$\ln F_{ijklmn} = \lambda + [...] + \lambda_{ijkl}^{EhEwCA} + \lambda_{klm}^{CAOh} + \lambda_{kln}^{CAOw} + \lambda_{im}^{EhOh} + \lambda_{jn}^{EwOw} + \lambda_{in}^{EhOw} + \lambda_{jm}^{EwOh} + \varphi\, Oh_m Ow_n \quad (4)$$

for all i = 1,…,15; j = 1,…,15; k = 1,…,4; l = 1,2; m = l,…,47; n = 1,…,47
[...] all lower order terms are included, but only highest order terms are shown in (4)

Finally, our third research question emphasizes our interest in trends in the association of husbands' and wives' occupations over cohorts. Therefore, we will estimate Models 1 to 3 again, but this time, we let the association parameter, the four level-diagonal parameters, and the 47 cells-diagonal parameters vary over cohorts. We will explore all possible combinations of cohort-constant and cohort-varying parameters in these three elements of the occupational association. Comparisons of the model fit will make clear whether significant differences between cohorts in one or more of these elements exist. Because differences in the association between cohorts reflect to some extent differences in association between age groups, we estimate the three models for couples of 40 years or older and couples younger than 40 years separately. In the oldest age group, birth cohorts 1940-1949, 1950-1959, and 1960-1969 are represented (N=59,299); the youngest age group covers the birth cohorts 1950-1959, 1960-1969, and 1970-1979 (N=71,945).

2.4.2 Results

Table 2.8 presents the model fits of the log-linear models that refer to all couples. Since we analyse very large numbers of cases, we use BIC statistics to draw conclusions on model fits comparisons. Firstly, we discuss models without controls for educational homogamy. Adding the four level-diagonal (Model 2) and the 47 cells-diagonal (Model 3) improves the fit of Model 1 that only specified a general association parameter. The BIC statistic of Model 3 is more negative than the BIC statistic of Model 2, and must therefore be preferred. In summary, the association between husbands' and wives' occupational association is best described as follows: husbands and wives have a tendency to work in the exact same occupational category, but if they are not, they are likely to work on the same occupational level, and—if they are not on the diagonals—they tend to have status scores that are close to each other.

Table 2.8 Fit statistics for association models for husbands' and wives' occupational level, not controlled and controlled for husbands' and wives' education (best fitting model according to BIC in boldface)

		not controlled for education			controlled for education		
		G2	df	BIC	G2	df	BIC
1	association with ISEI scaling	517,528	3,973,663	-46,311,350	191,244	3,971,087	-46,607,275
2	1 + diagonal for 4 occupational levels	514,985	3,973,659	-46,313,845	190,958	3,971,083	-46,607,514
3	**2 + diagonal for 47 occupational cells**	**500,150**	**3,973,612**	**-46,328,126**	**179,274**	**3,971,036**	**-46,618,645**

Source: Labour Force Surveys, 1994-2006; N=131,244

In Figure 2.2, we see the association parameters (phi) as estimated in Models 1 to 3. The association parameter represents the odds ratio of two occupations that are 1 scaling apart. The average low-level job and the average medium-level job are about one scaling apart, so husbands with an average low-level job are about 27 times more likely to be married to a wife with an average low-level job than to a wife with an average medium-level job, compared to husbands with an average medium-level job. If we consider that the imputed standardized mean ISEI scores range from -1.79 to 1.47, the association between spouses' occupations is considerable: the maximum odds ratio between husbands and wives with the lowest and highest occupational level in terms of ISEI is 87 (3.26*26.8).

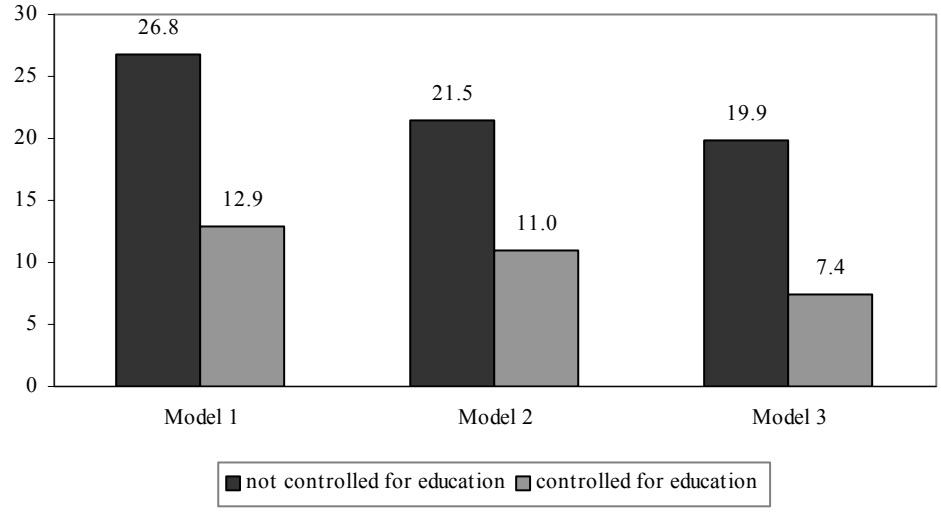


Figure 2.2 Estimated association parameters for husbands' and wives' occupational level, not controlled and controlled for husbands' and wives' education (Models 1, 2, and 3 correspond with the models defined in Table 2.8)

If separate effects for four homogeneous levels are included, the association parameter logically drops: the association between spouses' occupations is for twenty per cent due to spouses who both have a low, medium, high, or academic job (phi declines from 26.8 in Model 1 to 21.5 in Model 2). Another six per cent can be explained by spouses who work in the exact same occupational category (phi=19.9 in Model 3). The diagonal parameters (shown in appendix C) reveal that especially people in academic professions have a strong tendency to marry someone

with a similar occupational level (0.74), but this tendency is entirely the result of educational homogamy (-0.04 when controlled for education). People with a medium-level occupation are less likely to have spouses with the same job level than with another job level (-0.19). Despite the clear importance of the diagonal in our homogamy tables, the fact that three-quarters of the association remains after taking the diagonal effects into account, suggests that most of the association between spouses' occupational achievement comes from the tendency to have job levels close to each other, but not exactly similar.

Our second question concerns the degree in which the association between spouses' occupations can be attributed to educational homogamy. In Figure 2.2, we can see the association between spouses' occupational achievement if spouses' education is held constant. Not surprisingly, spouses' education is an important contributor to the association in occupational achievement: it explains about half of the association (from 26.8 to 12.9 in Model 1), and 63 per cent of the association that exists apart from the rough four level-diagonal and exact 47 cells-diagonal (from 19.9 to 7.4 in Model 3). However, what is more interesting in our view is the fact that still forty to fifty per cent of the association between spouses' occupational success is not due to educational homogamy or educational partner effects. This result implies that the occupational association between spouses covers much more than educational homogamy. And thus, we argue that research on couples' occupations—occupation being a more direct indicator for social position—provides a more accurate picture of social inequality between households than research on couples' education only. Further research is needed to explain the rest of the association between spouses' occupations.

Finally, the results of our test whether or not spouses' occupational association has changed over birth cohorts are shown in Table 2.9. In contrast with our preliminary results from the descriptive odds ratios in Table 2.7, we have to conclude that there are no significant cohort differences in either the association parameter, the four level-diagonal, or the 47 cells-diagonal[1]. According to the fit statistics, Model 1a has to be preferred over Model 1b for both age groups, indicating that the difference in the association parameter between cohorts is non-significant; the same is true for the diagonal effects. The best fitting model remains the model in which we define a general association model on top of a four level-diagonal and the 47-cells diagonal. Conclusions are no different if the model controls for educational homogamy (not shown). We therefore have to conclude that these elements of the occupational association of spouses have not changed significantly when couples born between 1940 and 1979 are considered, and that the suggested decline in the odds ratios (based on only four occupational levels) as shown in Table 2.7 does not represent a truly significant trend.

[1] A unidif model over cohorts indicates that there is a downward trend in the association between husband's and wife's occupation. For couples of 40 years or older, the association parameter in the 1950-1959 cohort is 90 per cent and in the 1960-1969 cohort 86 per cent of the association in the 1940-1949 cohort; for the younger age group, the association in the 1960-1969 cohort is 97 per cent and in the 1970-1979 cohort 90 per cent of the association in the 1950-1959 cohort. This reduction appears to be significant when tested against a social fluidity model. Apparently, this trend is not sufficiently represented by the three elements of spouses' occupational association that we study.

Table 2.9 Fit statistics for association models for husbands' and wives' occupational level by cohort for couples aged 25-39 and couples aged 40-55 (best fitting model according to BIC in boldface)

		couples aged 25-39			couples aged 40-55		
		G2	df	BIC	G2	df	BIC
1a	association with ISEI scaling	279,586	1,490,123	-16,385,439	237,934	1,490,123	-16,139,036
1b	association with ISEI scaling over cohorts	279,582	1,490,121	-16,385,421	237,929	1,490,121	-16,139,019
2a	1a + diagonal for 4 occupational levels	278,272	1,490,119	-16,386,708	236,702	1,490,119	-16,140,224
2b	1a + diagonal for 4 occupational levels over cohorts	278,260	1,490,111	-16,386,630	236,685	1,490,111	-16,140,153
2c	1b + diagonal for 4 occupational levels	278,268	1,490,117	-16,386,690	236,693	1,490,117	-16,140,211
2d	1b + diagonal for 4 occupational levels over cohorts	278,257	1,490,109	-16,386,611	236,678	1,490,109	-16,140,138
3a	**2a + diagonal for 47 occupational cells**	**271,697**	**1,490,072**	**-16,392,758**	**228,215**	**1,490,072**	**-16,148,194**
3b	2a + diagonal for 47 occupational cells over cohorts	271,494	1,489,978	-16,391,909	228,054	1,489,978	-16,147,322
3c	2b + diagonal for 47 occupational cells	271,689	1,490,064	-16,392,676	228,201	1,490,064	-16,148,120
3d	2b + diagonal for 47 occupational cells over cohorts	271,482	1,489,970	-16,391,832	228,028	1,489,970	-16,147,260
3e	2c + diagonal for 47 occupational cells	271,694	1,490,070	-16,392,738	228,209	1,490,070	-16,148,179
3f	2c + diagonal for 47 occupational cells over cohorts	271,493	1,489,976	-16,391,888	228,051	1,489,976	-16,147,303
3g	2d + diagonal for 47 occupational cells	271,686	1,490,062	-16,392,656	228,195	1,490,062	-16,148,105
3h	2d + diagonal for 47 occupational cells over cohorts	271,480	1,489,968	-16,391,812	228,023	1,489,968	-16,147,244

Source: Labour Force Surveys, 1994-2006; N=131,244 (N=71,945 younger than 40 years; N=59,299 40 years or older)

2.5 Conclusion

This study aims at describing the association between spouses' labour market participation and occupational success, to detect possible trends in these associations, and to establish the extent to which the occupational association exists on top of educational homogamy. Its merits lie in the contribution to our knowledge about the association between labour market characteristics of spouses that have a decisive impact on the socio-economic inequality between households.

Our first conclusion is that spouses' labour market participation and occupational achievement are positively associated. The implication of this finding is that resources are accumulated within households, increasing the socio-economic distance between couples. Negative associations between spouses' labour market participation are found among couples with children, indicating that couples divide paid labour when children are present. This means that economic theory is largely proven wrong, but finds some support as far as dual worker couples with children are concerned.

Secondly, educational homogamy is responsible for a considerable part of the association between spouses' labour market participation, for example because highly educated couples consist more often of two full-timers, and choose less often for a traditional breadwinner household when children are present. However, the tendency that either both persons in a couple are employed or non-employed is not merely a representation of educational homogamy; the unexplained association indicates that more factors play a role in the association between husbands' and wives' labour market participation, for instance partner effects during the relationship. In addition, educational homogamy explains about half of the association of spouses' occupational status. Simultaneously, this means that half of the association between spouses' occupational success cannot be attributed to their education. We interpret this result as

an encouragement to study couples' occupational characteristics in research on social inequality, and to search for other mechanisms that drive this association.

Thirdly, the association between spouses' labour market participation seems to have become more positive over time, whereas the association between spouses' occupational success has remained stable. In other words, the difference in the number of working hours between households becomes larger, but the degree of accumulation of labour market success remains the same. Together, these two processes form evidence of some increase in social inequality.

There are several alternative explanations for the substantial part of the association between partners' labour market positions that cannot be attributed to their educational achievements. We expect assortative mating on occupation to be a very important candidate. Other forms of homogamy, like age homogamy, may also explain part of the association. Furthermore, we believe that the ways in which partners affect each others' careers might be important. In our models, educational partner effects are included, but there may be others as well, especially occupational partner effects. Spouses do not only benefit from each others' educations, but from all possible resources, like each others' social capital in a broader sense.

Future research should investigate the importance of these alternative explanations in order to better understand the origin of the occupational association, and thus, of social inequalities between couples. A historical approach would be preferable; although the overall association between spouses' labour market success has not changed over time, the impact of the underlying mechanisms might have. Extension of our knowledge about the association between spouses' labour market participation and occupational success in other countries is another way of making progress in this field of study. Such comparisons can make clear whether the findings in this study are typically Dutch or whether the findings are generally true. On the one hand, the Netherlands are unique with respect to the huge number of part-time jobs. On the other hand, general economic and cultural developments that may influence spouses' labour market characteristics are rather universal. Therefore, the picture that emerges from this study is perhaps not that country-specific.

Appendix A

Occupational categories with corresponding (standardized) ISEI score and distribution for husbands and wives (dual worker couples only)

					husbands			wives		
sbc92 [a]			ISEI	standar-dized ISEI	average ISEI	N	%	average ISEI	N	%
		low occupations			**33**	**29,182**	**22.2**	**38**	**37,153**	**28.3**
11	(1)	elementary occupations	28	-1.79		4,925	3.8		8,477	6.5
20	(2)	without further information	39	-1.01		47	0.0		63	0.0
21	(3)	not specialist	47	-0.44		74	0.1		136	0.1
22	(4)	teachers	54	0.05		64	0.0		144	0.1
24	(5)	agrarian	30	-1.65		1,607	1.2		1,292	1.0
25	(6)	mathematic, physics	43	-0.73		27	0.0		71	0.1
26	(7)	technical	32	-1.51		11,156	8.5		2,099	1.6
28	(8)	transport	32	-1.51		5,904	4.5		775	0.6
29	(9)	(para)medical	37	-1.15		98	0.1		691	0.5
31	(10)	clerical, commercial	47	-0.44		3,496	2.7		17,954	13.7
33	(11)	security	40	-0.94		1,057	0.8		179	0.1
37	(12)	care-giving	30	-1.65		727	0.6		5,272	4.0
		medium occupations			**46**	**54,951**	**41.9**	**46**	**56,533**	**43.1**
40	(13)	without further information	47	-0.44		215	0.2		190	0.1
42	(14)	teachers	55	0.12		459	0.3		219	0.2
44	(15)	agrarian	52	-0.09		3,666	2.8		1,587	1.2
45	(16)	mathematic, physics	48	-0.37		280	0.2		274	0.2
46	(17)	technical	41	-0.87		22,320	17.0		1,592	1.2
48	(18)	transport	46	-0.51		1,283	1.0		659	0.5
49	(19)	(para)medical	42	-0.80		1,335	1.0		12,661	9.6
51	(20)	clerical, commercial	50	-0.23		18,484	14.1		26,375	20.1
53	(21)	juridical, governmental, security	55	0.12		2,987	2.3		975	0.7
55	(22)	linguistic, cultural	43	-0.73		523	0.4		644	0.5
56	(23)	behaviour and society	48	-0.37		855	0.7		2,231	1.7
57	(24)	care-giving	41	-0.87		2,544	1.9		9,126	7.0
		high occupations			**62**	**32,628**	**24.9**	**62**	**28,861**	**22.0**
60	(25)	without further information	60	0.55		610	0.5		351	0.3
62	(26)	pedagogical	68	1.05		4,411	3.4		8,936	6.8
64	(27)	agricultural	61	0.55		488	0.4		127	0.1
65	(28)	mathematic, physics	52	-0.09		245	0.2		159	0.1
66	(29)	technical	60	0.48		4,108	3.1		456	0.3
68	(30)	transport	59	0.41		477	0.4		49	0.0
69	(31)	(para)medical	53	-0.02		1,431	1.1		5,602	4.3
71	(32)	clerical, commercial	62	0.62		15,045	11.5		7,298	5.6
73	(33)	juridical, governmental, security	72	1.33		791	0.6		277	0.2
75	(34)	linguistic, cultural	61	0.55		1,040	0.8		1,239	0.9
76	(35)	behaviour and society	62	0.62		2,309	1.8		3,693	2.8
77	(36)	care-giving	47	-0.44		129	0.1		375	0.3
78	(37)	managers	66	0.90		1,544	1.2		299	0.2
		academic occupations			**71**	**14,483**	**11.0**	**72**	**8,697**	**6.6**
80	(38)	without further information	72	1.33		619	0.5		401	0.3
82	(39)	pedagogical	71	1.26		1,933	1.5		1,769	1.3
84	(40)	agricultural	74	1.47		94	0.1		42	0.0
85	(41)	mathematic, physics	74	1.47		472	0.4		136	0.1
86	(42)	technical	68	1.05		1,457	1.1		282	0.2
89	(43)	(para)medical	80	1.90		1,708	1.3		1,478	1.1
91	(44)	clerical, commercial, economic	71	1.26		2,997	2.3		1,122	0.9
93	(45)	juridical, governmental, security	74	1.47		1,422	1.1		1,255	1.0
96	(46)	behaviour and society	65	0.83		1,002	0.8		1,148	0.9
98	(47)	managers	68	1.05		2,779	2.1		1,064	0.8
		total			**50**	**131,244**	**100**	**49**	**131,244**	**100**

[a] *sbc92 = Standard Occupational Classification 1992, Statistics Netherlands*

Source: Labour Force Surveys, 1994-2006; N=131,244

Appendix B

Design matrix for 4-level diagonal of husbands' and wives' occupational level

See next page

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47
1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13	0	0	0	0	0	0	0	0	0	0	0	0	2	2	2	2	2	2	2	2	2	2	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14	0	0	0	0	0	0	0	0	0	0	0	0	2	2	2	2	2	2	2	2	2	2	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15	0	0	0	0	0	0	0	0	0	0	0	0	2	2	2	2	2	2	2	2	2	2	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16	0	0	0	0	0	0	0	0	0	0	0	0	2	2	2	2	2	2	2	2	2	2	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17	0	0	0	0	0	0	0	0	0	0	0	0	2	2	2	2	2	2	2	2	2	2	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18	0	0	0	0	0	0	0	0	0	0	0	0	2	2	2	2	2	2	2	2	2	2	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19	0	0	0	0	0	0	0	0	0	0	0	0	2	2	2	2	2	2	2	2	2	2	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20	0	0	0	0	0	0	0	0	0	0	0	0	2	2	2	2	2	2	2	2	2	2	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21	0	0	0	0	0	0	0	0	0	0	0	0	2	2	2	2	2	2	2	2	2	2	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22	0	0	0	0	0	0	0	0	0	0	0	0	2	2	2	2	2	2	2	2	2	2	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23	0	0	0	0	0	0	0	0	0	0	0	0	2	2	2	2	2	2	2	2	2	2	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24	0	0	0	0	0	0	0	0	0	0	0	0	2	2	2	2	2	2	2	2	2	2	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	3	3	3	3	3	3	3	3	3	3	3	0	0	0	0	0	0	0	0	0	0
26	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	3	3	3	3	3	3	3	3	3	3	3	0	0	0	0	0	0	0	0	0	0
27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	3	3	3	3	3	3	3	3	3	3	3	0	0	0	0	0	0	0	0	0	0
28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	3	3	3	3	3	3	3	3	3	3	3	0	0	0	0	0	0	0	0	0	0
29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	3	3	3	3	3	3	3	3	3	3	3	0	0	0	0	0	0	0	0	0	0
30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	3	3	3	3	3	3	3	3	3	3	3	0	0	0	0	0	0	0	0	0	0
31	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	3	3	3	3	3	3	3	3	3	3	3	0	0	0	0	0	0	0	0	0	0
32	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	3	3	3	3	3	3	3	3	3	3	3	0	0	0	0	0	0	0	0	0	0
33	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	3	3	3	3	3	3	3	3	3	3	3	0	0	0	0	0	0	0	0	0	0
34	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	3	3	3	3	3	3	3	3	3	3	3	0	0	0	0	0	0	0	0	0	0
35	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	3	3	3	3	3	3	3	3	3	3	3	0	0	0	0	0	0	0	0	0	0
36	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	3	3	3	3	3	3	3	3	3	3	3	0	0	0	0	0	0	0	0	0	0
37	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	3	3	3	3	3	3	3	3	3	3	3	0	0	0	0	0	0	0	0	0	0
38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	4	4	4	4	4	4	4	4	4
39	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	4	4	4	4	4	4	4	4	4
40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	4	4	4	4	4	4	4	4	4
41	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	4	4	4	4	4	4	4	4	4
42	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	4	4	4	4	4	4	4	4	4
43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	4	4	4	4	4	4	4	4	4
44	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	4	4	4	4	4	4	4	4	4
45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	4	4	4	4	4	4	4	4	4
46	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	4	4	4	4	4	4	4	4	4
47	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	4	4	4	4	4	4	4	4	4

Appendix C

Diagonal parameter estimates for husbands' and wives' occupational level (off-diagonal is reference category; parameter estimates of cells with fewer than 10 cases are not shown)

		not controlled for education [a)]	controlled for education [b)]	N diagonal
low		0.47	0.19	13,944
medium		-0.19	-0.13	27,214
high		0.09	0.04	11,502
academic		0.74	-0.04	3,723
low	elementary occupations	0.46	0.53	1,083
	without further information			2
	not specialist			3
	teachers			1
	agrarian	1.21	1.19	102
	mathematic, physics			0
	technical	0.44	0.48	503
	transport	1.19	1.22	189
	(para)medical			5
	clerical, commercial	0.14	0.20	749
	security	2.20	2.06	19
	care-giving	1.48	1.72	211
medium	without further information			4
	teachers	4.61	4.46	58
	agrarian	4.95	4.75	1,205
	mathematic, physics	3.23	2.82	15
	technical	0.92	0.99	641
	transport	2.45	2.47	72
	(para)medical	1.09	1.00	380
	clerical, commercial	0.37	0.27	5,233
	juridical, governmental, security	2.52	2.28	228
	linguistic, cultural	2.58	2.69	36
	behaviour and society	1.47	1.36	66
	care-giving	1.53	1.74	749
high	without further information	1.77	1.82	13
	pedagogical	1.05	1.00	1,358
	agricultural			9
	mathematic, physics	3.51	2.16	11
	technical	1.31	1.22	67
	transport	4.12	3.73	12
	(para)medical	1.72	1.24	323
	clerical, commercial	0.49	0.50	1,817
	juridical, governmental, security			9
	linguistic, cultural	2.79	2.35	173
	behaviour and society	1.20	0.88	274
	care-giving			6
	managers	1.40	1.70	25
academic	without further information	1.75	1.14	37
	pedagogical	0.92	0.56	214
	agricultural			2
	mathematic, physics	2.23	1.27	16
	technical	1.80	1.28	51
	(para)medical	1.79	2.18	432
	clerical, commercial, economic	0.54	0.49	156
	juridical, governmental, security	1.47	1.32	196
	behaviour and society	1.74	0.84	109
	managers	-0.09	0.39	72

a) based on Model 3, not controlled for education

b) based on Model 3, controlled for education

Source: Labour Force Surveys, 1994-2006; N=131,244

Chapter 3

Partner effects on labour market participation and job level: opposing mechanisms and their combined effect on income (cohorts 1940 – 1974)

This chapter investigates how and to what extent the human capital of the spouse affects labour market participation (working hours), job level (wage rate), and income (the product of hours and wage). Theoretically, we expect that there are two mechanisms at work: a restrictive mechanism based on economic incentives and a supportive mechanism based on social capital. The large-scale Labour Force Surveys conducted by Statistics Netherlands from 1977 onwards indeed show that partner's human capital has a negative influence on labour market participation and a positive influence on job level (imputed hourly wage). Over birth cohorts, the restrictive effect on labour market participation has become stronger for males and weaker for females, whereas the supportive effect on job level has decreased for both men and women. As a result, the association between spouses' income levels has declined.

3.1 Introduction

Does human capital of the spouse or partner help or hinder one's labour market career? The literature reports conflicting ideas on this subject: economic theory expects a negative relationship due to financial incentives, whereas a positive relationship can be expected from a social capital point of view. These opposing expectations make it unclear, beforehand, what consequences the human capital of the spouse has for labour market outcomes. In this study, we set out to unravel these conflicting mechanisms in order to better understand the interdependencies between spouses' labour market careers. For this purpose, we argue that it is essential to decompose labour market outcomes into labour market participation (number of working hours) and job level (expressed by imputed hourly wage), because we expect negative partner effects to be particularly relevant for labour market participation and positive partner

effects for job level. Furthermore, we will examine the net result of these opposing effects by focusing on income, which is the product of working hours and job level.

The extent to which spouses increase or decrease each others' incomes is relevant with respect to social inequality between households. In earlier days, household income was determined by the husband's career, because wives usually did not work. With the huge increase of working women, household income now is determined by the labour market careers of both spouses (Blossfeld & Drobnič, 2001). As a consequence, it is very important to take into account that inequality between households depends on the association between spouses' incomes: a positive association between spouses' income levels implies accumulation of income sources within the household. Moreover, the stronger the association, the higher the degree of inequality between couples. A negative income association flattens inequality on the household level.

The association between spouses' income levels is the sum of two different processes: (a) homogamy that leads to similarity in resources, and (b) the positive and negative effects partners have on each others' career outcomes. Homogamy, especially with respect to education and occupation, contributes to a positive association between spouses' income levels (ceteris paribus). The consequences of the effects partners have one each others' career decisions are not clear. The existing literature offers arguments for both restrictive and supportive partner effects, which would result in a negative and positive association between spouses' income levels, respectively. On the one hand, economic theory predicts restrictive partner effects, because a partner who is successful on the labour market reduces the financial incentives of the other partner to work long hours or to put effort into a career. On the other hand, it is also plausible to expect that there are some positive effects of the human capital of one's partner, due to effects of social capital. Spouses, especially the ones with high levels of human capital, may be able to help each other to get better jobs (Lin, Vaughn, & Ensel, 1981). In addition, level of schooling might represent a non-traditional attitude towards the sexual division of labour. Therefore, a highly educated husband might stimulate his wife's career, whereas a highly educated wife might hinder her husband's career (Bernasco, 1994).

We are interested in the extent to which these conflicting mechanisms are at work, and what the net effects of the spouse's human capital are on the other spouse's income level. Because we expect the negative influence mechanism to be mainly valid for labour market participation decisions, and the positive influence mechanisms for job level, we believe it is necessary to disentangle effects on working hours and job level. Our first research question reads: To what extent does spouse's human capital positively or negatively affect labour market participation and job level, and what is the effect of spouse's human capital on the product of working hours and job level (income)?

In addition, we will perform a cohort analysis. The issue of interdependencies between spouses' labour market careers has become more and more of interest because of the steep rise in female labour market participation and the greater importance of the association between spouses' labour market careers for social inequality. By examining changes over time, we hope to

gain more insight into the historical development of the ways in which spouses affect each others' labour market careers and into the importance of these partner effects for social inequality. Therefore, our second research question is: To what extent has the influence of spouse's human capital on labour market participation and job level, and on the combination of the two, i.e. income, changed over time?

3.2 Hypotheses on partner effects

3.2.1 Restriction, support, and values

Working hours and job level strongly determine available time and income, and it is exactly these two matters that are necessary for running a household. As a result, human capital of both partners is assumed to have an impact on individual labour market outcomes (Bernasco, 1994; Blossfeld & Drobnič, 2001). Conflicting hypotheses about the direction of this impact exist, and we propose three theoretical interpretations of the effect of partner's human capital, referring to economic, social, and cultural interpretations. We will refine these general hypotheses by relating them to two specific career components: labour market participation and job level. We consider educational attainment and (imputed) hourly wage as indicators of partner's human capital.

Based on economic theory, we expect human capital of one partner to negatively affect the labour market career of the other partner. New home economists reason that specialization of tasks, in which the spouse with highest earning capacities does paid labour and the other unpaid labour, is the most optimal situation for a household (Becker, 1981). This implies that the partner with the highest level of human capital is a restriction to the labour market career of the other. The economic idea has also been translated into more general terms, which we will use in this study: if one partner is successful on the labour market (indicated by a high level of human capital), the other has no financial incentives to work long hours or to put much effort into his or her career; and also, someone whose partner has a successful career can afford to have a less successful career (Bernardi, 1999; Bernasco, de Graaf, & Ultee, 1998; Hendrickx, Bernasco, & de Graaf, 2001; Sørensen, 1983). Support for the restrictive effect of spouses on labour market careers has been found in earlier studies (Bernasco, de Graaf, & Ultee, 1998; Henz & Sundström, 2001; Van der Lippe, 1993; Sundström & Duvander, 2002).

We suggest a refinement of this economic interpretation that helps us to better understand how labour market careers of spouses are interrelated. In general, the economic interpretation applies to all aspects of labour market careers, but we expect it to be especially relevant for the number of working hours and not so much for job level. Couples can handle only a maximum number of working hours (although this maximum can differ among couples with and without children), but there is no clear maximum in job level they can handle. As a result, the restrictive partner effect is supposed to be more compelling towards working hours.

Secondly, the social interpretation assumes that human capital of the spouse acts as a support mechanism for one's career. In this interpretation, human capital is regarded as an indicator of social resources. According to social capital theory, having a partner with social

resources can be beneficial to one's labour market career because of useful social networks and effective information or advice on career development (Lin, Vaughn, & Ensel, 1981). The transfer of the positive effect of human capital on the labour market career of the partner has been found in several studies (Benham, 1974; Bernardi, 1999; Bernasco, de Graaf, & Ultee, 1998; Brynin & Francesconi, 2004; Brynin & Schupp, 2000; Henkens, Kraaykamp, & Siegers, 1993).

We also like to propose a refinement of the social interpretation of spouse's human capital. We expect the support mechanism to be mainly applicable to job level, since networks and useful information can help to get a better job, but can hardly influence the number of working hours of that job. Therefore, we expect that negative partner effects will be dominant in predicting husband's and wife's working hours, whereas positive partner effects will be dominant in predicting husband's and wife's job level.

The third interpretation of the effects of the spouse's human capital is a cultural one, and is based on the observation that education is an important predictor of attitudes towards gender roles and division of labour (Alwin, Braun, & Scott, 1992). Traditionally, men have a breadwinner role and women a caring role, but in a modern view, husband and wife should divide paid and unpaid tasks equally. Therefore, we could hypothesize that a highly educated husband will positively affect his wife's labour market career, whereas a highly educated wife will negatively affect her husband's labour market career. We suppose this interpretation to be valid for predicting both husband's and wife's working hours and job level, since values refer to labour market participation (working hours) as well as to career pursuit (job level).

In sum, theoretically we can expect positive and negative partner effects, different effects on labour market participation and job level, and different effects for husbands and wives. The economic interpretation predicts a restrictive partner effect, but particularly on working hours. The social capital interpretation predicts a supportive partner effect, but especially on job level. The cultural interpretation is applicable to both working hours and job level, and predicts a positive effect of partner's human capital on wives' labour market careers and a negative effect on husbands' labour market careers. The net partner effect thus depends on the relative strength of the three interpretations of the workings of partner's human capital.

3.2.2 Changes in partner effects

We will investigate to what extent the effects spouses have on each others' careers have changed over time, by comparing the labour market careers of couples born between 1940 and 1974. The oldest birth cohort entered the labour market at the end of the 1950s, and the youngest birth cohort entered the labour market in the 1990s. We found our expectations about changes in partner effects on two major societal changes: individualization and secularization on the one hand, and cultural and economic modernization on the other hand. Individualization and secularization point at a tendency for people to live their lives more independently of the influence of others, and of their social environment in general. In line with this general trend, we

can expect that the influence that partners have on each others' labour market careers will have diminished.

The process of cultural and economic modernization may have had different consequences for men and women. We consider cultural modernization to have had an impact on the norms about the sexual division of labour towards more approval of working women and mothers and caring fathers (Treas & Widmer, 2000). For women, traditional norms coincide with the restrictive partner effect: women should stop working and building a career after they marry or have children. The supportive partner effect is more in line with the modern value that women should have a career of their own. Over birth cohorts, we therefore expect restrictive partner effects on female labour market careers to have declined in favour of supportive partner effects. This trend will be strengthened by the economic modernization that has led to rising levels of female educational attainment, labour market participation and success. As a consequence, it has increasingly become in the husbands' interest to stimulate their wives' careers (Oppenheimer, 1977). For men, we expect the trend to be the other way around: traditional norms prescribe male responsibility for the household's income, which means that male careers were maximally supported by their wives, whereas modern values emphasize men's contribution to family life, which implies that their wives have more reason to restrict their husbands' labour market careers.

3.3 Data

We use data from the Labour Force Surveys, as conducted by Statistics Netherlands in 1977, 1991, 1994, 1995, 1996, 1997, 1998, 2000, 2001, 2002, 2003, 2004, 2005 and 2006[1]. These surveys contain information on job characteristics of both spouses, together with information on their levels of education, and presence of children. The data are representative of the Dutch non-institutionalized population of 15 years and older. Response rates are about 60 per cent. We have selected male-female couples between 25 and 55 years of age, born between 1940 and 1974, of which the number of working hours and job level (if employed) of both spouses is known. We have included married as well as cohabiting couples. After this selection we have information on the labour market situation of 272,570 couples. A disadvantage of the Labour Force Surveys is the absence of income information. However, this disadvantage is off-set by the high-quality and large-scale information they provide, and the detailed occupational information makes it possible to make reliable inferences about income.

3.3.1 Labour market participation, job level, and monthly income

The first part of our analysis focuses on effects of partner's human capital on two separate components of labour market careers: labour market participation and job level. In the second part of the analysis, we are interested in the effects of partner's human capital on monthly income, which is the product of the prior two dependent variables.

[1] The large gap between the first (1977) and second (1991) survey has no consequences for the conclusions: an analysis in which the 1977 survey was not included did not lead to different conclusions.

We distinguish three categories of male labour market participation: non-employment, a part-time job (less than 35 hours a week), and a full-time job (35 hours or more a week). Note that in the Netherlands, non-working men in this age category consist mainly of disabled and unemployed men, and thus are involuntarily jobless. Since the variation in the group of part-time working women is larger and theoretically more interesting, we distinguish four categories of female labour market participation: non-employment, a small part-time job (1-19 hours a week), a large part-time job (20-34 hours a week), and a full-time job (35 hours or more a week). Reducing the number of working hours into a limited number of categories could be considered as a loss of information. However, the distinction between part-time and full-time jobs is an important threshold in the Netherlands, both for men and women, and the distinction between a small and a large part-time job is an important one for women. These distinctions are more meaningful than the precise number of working hours. In the second phase of the data analysis, we will use information on the exact number of working hours to construct monthly incomes.

The Labour Force Surveys offer detailed information on occupations but do not include information on wages. Because occupational status is considered as a measure for lifetime or permanent income (Hauser & Warren, 1997, p. 198), we transform occupational status scores (expressed in ISEI) into hourly wages based on data from the Loonwijzer (Tijdens, 2005). The Loonwijzer provides information on job titles and hourly wages of almost 80,000 Dutch men and women interviewed between 2000 and 2004. We estimate a separate regression model for men and women, in which the net hourly wage in Euros is the dependent variable and ISEI is the independent variable. The estimated regression equations[2] are used to compute male and female net hourly wages in the Labour Force Surveys (cf. de Graaf & Kats, 2007). The net hourly wage ranges from 7.24 to 13.25 Euros for men and from 6.73 to 10.33 Euros for women. Note that the range of these estimated hourly wages is more limited than in reality. Two thirds of the men and over half of the women in the Loonwijzer have real wages within the estimated ranges[3]. The advantage of a linear transformation of ISEI into hourly wages is that the zero point has a natural meaning, so that we can construct an income measure by simply multiplying the number of working hours and hourly wage. Note that we apply the hourly wage imputation based on the

[2] For men: 4.910 + .097*ISEI; for women: 5.341 + .058*ISEI.

[3] As an alternative, we calculated average net hourly wages for men and women for each ISCO88 (International Standard Classification of Occupations, 1988) job category (3 digits) in the Loonwijzer, and linked these average hourly wages to the 3-digit ISCO categorization in the Labour Force Surveys. This approach provides ranges that are more in concordance with ranges in real incomes (6.06-15.16 Euros for men and 5.58-12.82 Euros for women, which means that 84 per cent of the men and 77 per cent of the women have real hourly wages that fall within the estimated ranges). However, this method does not use estimates, and is therefore very sensitive to the number of cases on which the average is based. If we stick to a reasonable minimum of 20 cases per category, we cannot impute hourly wages for 29 per cent of the working men and 27 per cent of the working women in the Labour Force Surveys. On top of that, the relationships between educational achievement and hourly wage and between age and hourly wage deviate more strongly from the relationships usually found when the ISCO-based hourly wage measure is used than when the ISEI-based hourly wage measure is used. If we impute the missing values with hourly wages based on ISEI, this does not change. Because of these disadvantages, we believe the ISEI-based imputation is preferable over the ISCO-based imputation.

2000-2004 Loonwijzer data to all jobs reported on in our data. This has the advantage that inflation does not play a role; thus, that we can compare birth cohorts. We thereby assume that the order of jobs according to their hourly wages is rather stable over time, corresponding to the underlying assumption of the ISEI measure which is widely used. In this chapter, we use the terms job level and hourly wage interchangeably. In the 1994 and 1995 surveys, respondents who work less than 12 hours a week are not asked to report on job characteristics since these small jobs are officially considered as non-employment. For these respondents (N=244 men and N=4,852 women), we impute the average wage of men and women in this employment category from the other surveys.

Our estimates of the monthly incomes of husbands and wives are based on the product of the estimated hourly wage and the exact number of weekly working hours. Working hours are top-coded at 40. This weekly income is multiplied by factor 4.33 (52 weeks dived by 12 months).

3.3.2 Independent variables

The educational attainment of respondents and their spouses is measured in years of schooling: primary education (6 years), lower vocational training and lower secondary training (10 years), intermediate vocational training/intermediate and higher secondary training (12 years), vocational colleges (15 years), and university (17 years). Less than one per cent of the respondents lack information on educational attainment; in these cases the average male or female education has been imputed, and a dummy variable has been added to the analysis (1=originally missing information, coefficients are not shown in the tables).

Partner's and respondent's working hours are top-coded at 40 hours a week, and job level and monthly income are defined as described in the prior section. Partners who do not have a job get a mean score on job level and monthly income, and a dummy variable indicating that the partner is non-employed is included in the analysis. This dummy variable indicates the difference between men or women with a non-employed partner and with a partner with an average job level or monthly income.

In the models we use three control variables: presence and age of children, birth cohort, and age. Firstly, we distinguish between couples with and without children. The former consists of a category in which the youngest child is under four and a category in which the youngest child is four years or older. We do not have detailed information on children who do not live in the same household as their parents, but we distinguish couples of which the wife is younger than 40 years, and couples of which the wife is 40 years or older. Most, but of course not all, childless couples of the first type will be in the pre-child phase, and most, but again not all, childless couples of the second type will be in the empty nest phase (de Graaf & Vermeulen, 1997). As a result, we distinguish four categories of the family cycle. Note that the information in the 1977 survey is less precise, which forces us to classify four-year-old children in the 'youngest child under four-category' instead of in the 'youngest child four years or older-category'. Of all the couples in the data, 14 per cent do not have children in the household while the wife is younger

than 40 years, 28 per cent have young children, 48 per cent have children of at least four years old, and 10 per cent do not have children in the household while the wife is 40 years or older.

Table 3.1 Descriptive information for males and females

	males					females				
	N	min	max	mean	st dev	N	min	max	mean	st dev
labour market participation	272,570					272,570				
non-employed	6.2%									
part-time job (1-34 hours)	7.3%									
full-time job (>=35 hours)	86.5%									
non-employed						36.5%				
small part-time job (1-19 hours)						21.9%				
large part-time job (20-34 hours)						27.6%				
full-time job (>=35 hours)						14.0%				
hourly wage										
estimated net hourly wage (in Euros) [a)]	255,633	7.24	13.25	9.54	1.43	173,091	6.73	10.33	8.00	0.80
mean-centred [a)]	255,633	-2.30	3.71	0	1.43	173,091	-1.27	2.33	0	0.80
monthly income										
estimated net monthly income (in Euros) [a)]	255,633	32	2,297	1,578	289	173,091	29	1,790	828	404
mean-centred [a)]	255,633	-1,546	719	0	289	173,091	-799	963	0	404
partner's resources										
partner's education (in years)	272,570	6	17	11.51	2.73	272,570	6	17	11.98	2.88
mean-centred	272,570	-5.51	5.49	0	2.73	272,570	-5.98	5.02	0	2.88
partner no job	36.0%					6.2%				
partner's estimated net hourly wage (in Euros) [b)]	173,091	6.73	10.33	8.00	0.80	255,633	7.24	13.25	9.54	1.43
mean-centred [b)]	173,091	-1.27	2.33	0	0.80	255,633	-2.30	3.71	0	1.43
partner's estimated net monthly income (in Euros) [b)]	173,091	29	1,790	828	404	255,633	32	2,297	1,578	289
mean-centred [b)]	173,091	-799	963	0	404	255,633	-1,546	719	0	289
partner's working hours [b)]	173,091	1	40	23.55	10.74	255,633	1	40	38.17	4.11
mean-centred [b)]	173,091	-13.96	25.04	8.60	10.74	255,633	-34.79	4.21	2.37	4.11
individual resources										
education (in years)	272,570	6	17	11.98	2.88	272,570	6	17	11.51	2.73
mean-centred	272,570	-5.98	5.02	0	2.88	272,570	-5.51	5.49	0	2.73
working hours [a)]	255,633	1	40	38.17	4.11	173,091	1	40	23.55	10.74
mean-centred [a)]	255,633	-37.17	1.83	0	4.11	173,091	-22.55	16.45	0	10.74
control variables										
no children, wife <40	13.8%					13.8%				
youngest child <4	28.4%					28.4%				
youngest child >=4	48.3%					48.3%				
no children, wife >=40	9.5%					9.5%				
age	272,570	25	54	40.18	7.58	272,570	25	54	37.93	7.57
centred (25 years=0)	272,570	-10	19	5.18	7.58	272,570	-10	19	2.93	7.57
age square	272,570	625	2,916	1,671.79	615.85	272,570	-10	19	2.93	7.57
centred (25 years=0)	272,570	0	361	84.33	99.72	272,570	625	2,916	1,496.18	588.46
average birth year	272,570	1940	1974	1958	8.50	272,570	1940	1974	1958	8.50
centered (1940=0)	272,570	0	3.4	1.79	0.85	272,570	0	3.4	1.79	0.85

[a)] for employed respondents only
[b)] for respondents with employed partner only
Source: Labour Force Surveys 1977-2006

In order to analyse changes over time, we examine developments over birth cohorts. We have data on couples born between 1940 and 1974 in the age range of 25 to 54. The repeated cross-sectional surveys (1977-2006) allow us to observe all birth cohorts at different ages, which makes it possible to disentangle them and estimate the effects of age and birth cohort. We transform spouses' average birth year in such a way that 0 reflects birth year 1940, and divide the transformed birth year by factor 10 in order to interpret the effects of cohort as changes over decades. Finally, we control for age of the respondent by including age and age square into our models. We centre the independent variables to enable a meaningful interpretation of the intercepts. We centre age at 35, and (partner's) education, (partner's) job level, (partner's) working hours, and partner's income are mean-centred. Table 3.1 shows descriptive information on all (non-)centred variables used in the analysis for men and women.

3.4 Results

3.4.1 Labour market participation

Tables 3.2 and 3.3 show, for husbands and wives respectively, to what extent their labour market participation depends on their human capital and that of their spouse, controlled for birth year, age, and the presence and age of children (Model 1). In addition, Model 2 includes the interactions with birth year, which show to what extent these effects have changed over time. Note that the reference category for men is part-time work, and for women a small part-time job (1-19 hours). For women, we also show the contrast between a full-time and large part-time job (Table 3.3).

We find clear support for the existence of negative partner effects both on male and female labour market participation. As education and job level of the wife increase, the likelihood of having a full-time job instead of part-time job for a man decreases. For example, a husband whose wife has an average hourly wage is about 20 per cent less likely to have a full-time job instead of a part-time job than a husband whose wife earns one Euro per hour more (b=-0.237, exp(b)=0.789). Women are less likely to have large part-time jobs instead of small part-time jobs, and to have full-time jobs instead of part-time jobs (either small or large) if their husbands are highly educated and have a high job level. For example, a wife with the most highly educated husband is 35 per cent less likely to choose a full-time job than a job of 20 to 34 hours compared to a wife with the most poorly educated husband ($\exp^{(-0.039*11)}$). A different story applies to men's probability to be non-employed: a wife with a lot of human capital prevents the husband from being non-employed, and thus has a supportive influence in this respect.

Interestingly, full-time jobs are not always held by the most highly educated. Highly educated men and women are less likely to have a full-time job than a (large) part-time job. For men, this finding could be interpreted as an indication of modern values that are more strongly embraced by the highly educated. For women, this finding is surprising. Here, modern values do not seem to play a decisive role. Financial incentives in the form of job level, are a constant factor in stimulating labour market participation of both men and women; whatever contrast is chosen, wage rate increases labour market participation.

Although our main focus is on spouses' human capital—expressed by educational level and job level—it is interesting to have a look at the relationship between husbands' and wives' working hours. After all, the number of hours spent on the labour market partly determines the income level, which we want to explain in the second stage of the analysis. In general, our results show a negative relationship: a partner who is employed for many hours lowers working hours of the other; this demonstrates couples' tendency to divide labour, and is true for both husbands and wives. Again, we observe the exception where non-employment is concerned: there appears to be a positive relationship between non-employment of the spouse and the respondent. This finding confirms earlier studies that showed a positive association between spouses' (non-)employment but negative associations between their working hours, given that they are employed (see Chapter 2).

Table 3.2 Male labour market participation: effects of individual and partner's human capital (multinomial logistic regression, effects on log odds)

MALES	**non-employed v. part-time**				**full-time v. part-time**			
	Model 1		Model 2		Model 1		Model 2	
	b	se	b	se	b	se	b	se
intercept	-1.245 **	0.061	-0.484 **	0.074	3.142 **	0.043	3.190 **	0.048
birth year [a)]	0.232 **	0.018	-0.128 **	0.032	-0.048 **	0.013	-0.024	0.019
age	-0.002	0.003	-0.006 *	0.003	-0.039 **	0.002	-0.043	0.002
age^2	0.002 **	0.000	0.003 **	0.000	0.000 **	0.000	0.001 **	0.000
no children, wife <40								
youngest child <4	-0.442 **	0.042	-0.551 **	0.044	-0.457 **	0.028	-0.521 **	0.030
youngest child >=4	-0.271 **	0.044	-0.383 **	0.046	-0.203 **	0.031	-0.264 **	0.033
no children, wife >=40	-0.160 **	0.054	-0.281 **	0.055	-0.374 **	0.038	-0.437 **	0.040
education	-0.195 **	0.004	-0.279 **	0.010	-0.065 **	0.004	-0.103 **	0.009
* birth year [a)]			0.049 **	0.005			0.023 **	0.005
hourly wage	n.a.		n.a.		0.108 **	0.007	-0.014	0.017
* birth year [a)]			n.a.				0.067 **	0.008
wife's education	-0.138 **	0.005	-0.053 **	0.011	-0.066 **	0.004	-0.018 *	0.009
* birth year [a)]			-0.051 **	0.006			-0.028 **	0.005
wife's hourly wage	-0.205 **	0.021	-0.102 *	0.051	-0.237 **	0.013	-0.135 **	0.034
* birth year [a)]			-0.041	0.026			-0.053 **	0.017
wife's working hours	0.023 **	0.002	0.013 **	0.003	-0.019 **	0.001	-0.009 **	0.002
* birth year [a)]			0.006 **	0.002			-0.006 **	0.001
wife no job	1.422 **	0.046	0.426 **	0.103	-0.137 **	0.029	-0.039	0.068
* birth year [a)]			0.618 **	0.057			-0.051	0.036

*** p<.01; * p<.05; n.a. not applicable*

[a)] birth year ranges from 0 (1940) to 3.4 (1974)

Source: Labour Force Surveys 1977-2006, N=272,570

Models 2 of Tables 3.2 and 3.3 inform us about trends in partner effects on labour market participation. We observe opposing developments for men and women. For men, the negative influence of wives' educational attainment on their probability to work full-time instead of part-

Table 3.3 Female labour market participation: effects of individual and partner's human capital (multinomial logistic regression, effects on log odds)

FEMALES	**non-employed v. small part-time**				**large part-time v. small part-time**				**full-time v. small part-time**				**full-time v. large part-time**			
	Model 1		Model 2		Model 1		Model 2		Model 1		Model 2		Model 1		Model 2	
	b	se	b	se	b	se	b	se	b	se	b	se	b	se	b	se
intercept	1.964 **	0.035	2.010 **	0.037	1.714 **	0.036	1.617 **	0.038	2.158 **	0.042	2.050 **	0.043	0.443 **	0.032	0.433 **	0.034
birth year [a)]	-0.704 **	0.009	-0.728 **	0.010	0.140 **	0.011	0.195 **	0.012	-0.029 *	0.013	0.022	0.015	-0.169 **	0.012	-0.173 **	0.013
age	-0.073 **	0.001	-0.073 **	0.001	0.024 **	0.002	0.024	0.002	-0.029 **	0.002	-0.028 **	0.002	-0.053 **	0.002	-0.052 **	0.002
age^2	0.002 **	0.000	0.002 **	0.000	0.000 *	0.000	0.000	0.000	0.001 **	0.000	0.001 **	0.000	0.001 **	0.000	0.001 **	0.000
no children, wife <40																
youngest child <4	-0.074 *	0.030	-0.079 **	0.030	-1.906 **	0.028	-1.925 **	0.028	-3.712 **	0.031	-3.733 **	0.031	-1.806 **	0.022	-1.808 **	0.022
youngest child >=4	-0.420 **	0.032	-0.436 **	0.032	-1.940 **	0.031	-1.949 **	0.031	-3.179 **	0.034	-3.179 **	0.034	-1.239 **	0.024	-1.230 **	0.024
no children, wife >=40	-0.168 **	0.038	-0.169 **	0.038	-1.344 **	0.038	-1.355 **	0.038	-1.801 **	0.043	-1.809 **	0.043	-0.458 **	0.034	-0.455 **	0.034
education	-0.096 **	0.002	-0.086 **	0.006	0.040 **	0.003	0.003	0.007	0.032 **	0.004	-0.032 **	0.009	-0.008 *	0.004	-0.035 **	0.009
* birth year [a)]			-0.007 *	0.003			0.022 **	0.004			0.038 **	0.005			0.016 **	0.004
hourly wage	n.a.		n.a.		0.685 **	0.010	0.665 **	0.025	1.110 **	0.013	1.114 **	0.032	0.424 **	0.011	0.449 **	0.029
* birth year [a)]			n.a.				0.009	0.013			-0.004	0.016			-0.013	0.014
husband's education	-0.005	0.003	-0.005	0.006	-0.022 **	0.003	-0.016 *	0.007	-0.061 **	0.004	-0.086 **	0.009	-0.039 **	0.003	-0.070 **	0.008
* birth year [a)]			0.000	0.003			-0.002	0.004			0.015 **	0.005			0.017 **	0.004
husband's hourly wage	0.016 **	0.005	0.002	0.012	-0.014 *	0.005	-0.018	0.014	-0.049 **	0.007	-0.139 **	0.018	-0.034 **	0.006	-0.121 **	0.017
* birth year [a)]			0.006	0.006			0.002	0.007			0.043 **	0.009			0.041 **	0.008
husband's working hours	0.001	0.001	0.009 **	0.003	-0.023 **	0.001	0.011 **	0.004	-0.024 **	0.002	0.012 **	0.005	0.000	0.002	0.001	0.004
* birth year [a)]			-0.004	0.002			-0.020 **	0.002			-0.021 **	0.002			-0.001	0.002
husband no job	1.054 **	0.063	0.509 **	0.137	-0.395 **	0.065	0.366 *	0.155	0.365 **	0.080	0.922 **	0.190	0.760 **	0.066	0.556 **	0.165
* birth year [a)]			0.381 **	0.080			-0.426 **	0.085			-0.316 **	0.102			0.110	0.082

*** p<.01; * p<.05; n.a. not applicable*

[a)] birth year ranges from 0 (1940) to 3.4 (1974)

Source: Labour Force Surveys 1977-2006, N=272,570

time has become more negative over cohorts (from -0.018 for the 1940-cohort to -0.018-(0.028*3.4)=-0.113 for the 1974-cohort). Also, wives' job levels have become more and more a restriction to male full-time work over cohorts (-0.135 for the 1940-cohort, and -0.017-(0.053*3.4)=-0.315 for the 1974-cohort). Whereas for men negative partner effects on labour market participation have become stronger, the opposite is true for women: the restriction of husbands' educational level on female labour market participation has weakened over cohorts, and the restrictive effect of husbands' job levels in the older cohorts has disappeared in the recent cohort; the decision for women to work full-time instead of part-time is in young cohorts no longer dependent on the wage rate of the husband. The opposing trends for men and women are in line with our hypotheses based on the cultural and economic modernization. The overall conclusion is that a partner's human capital restricts labour market participation of both men and women, and this restriction has increased for men and decreased for women.

3.4.2 Job level

Partner effects on job level are presented in Table 3.4 for men and women who have a job. In contrast with the predominantly negative partner effects on labour market participation, we find clear positive effects of partner's human capital on job level: people with a highly educated or well-paid husband or wife have a higher job level. The net average hourly wage of a childless, 35-year-old man, born in 1940, with an average educational level, and whose working wife has an average level of human capital, is 10.09 Euros. For every extra year of schooling of his wife, his hourly wage increases with 5 cents, which means a difference of 55 cents per hour between a man whose wife only has elementary schooling and a man whose wife has a university degree. For every extra Euro his wife earns per hour, his hourly wage increases with 23 cents. The effects are smaller for women, but still highly significant (2 cents for every extra year of husband's schooling and 8 cents for every extra Euro of husband's hourly wage).

Respondent's education and working hours contribute positively to job level as well, and are more important than resources of the partner. We would like to note that the causality between job level and number of working hours is difficult to assess: on the one hand, a high job level is an incentive to work many hours; on the other hand, especially for women, working many hours is rewarded by employers, who interpret this as work commitment. However, in order to prevent other effects to get confounded, we decided to include working hours into the models.

Labour market participation of the partner influences job level, and again we see the ambivalent influence of partner's (non-)employment and working hours (given employment). A non-working spouse negatively affects job level, presumably because such a spouse lacks resources that could help with getting a better job, but the more hours a spouse works the lower one's job level, suggesting that people put less effort into their career if their spouses work more hours.

Developments in partner effects on job level are presented in Models 2 of Table 3.4. In general, we see a decline in the positive influence of spouse's human capital on job level over

birth cohorts, although they remain significantly positive in the youngest cohort; the effect of wives' education on husbands' job level has remained unchanged. On the basis of cultural and economic modernization, we expected a decline in supportive partner effects only for men, but we see a similar trend for women. This result is actually more in line with the idea that partners have become less influential in each others' labour market decisions. If we combine the results with respect to trends on labour market participation and job level, we can conclude that for women both the negative partner effect on labour market participation and the positive partner effect on job level have decreased, whereas for men the negative partner effect on labour market participation has become stronger and the positive partner effect on hourly wage has weakened.

Table 3.4 Male and female hourly wage: effects of individual and partner's human capital (OLS regression, unstandardized regression coefficients)

	males						**females**					
	Model 1			Model 2			Model 1			Model 2		
	b		se	b		se	b		se	b		se
intercept	10.091	**	0.011	10.092	**	0.013	8.061	**	0.007	8.039	**	0.008
birth year [a)]	-0.259	**	0.003	-0.269	**	0.005	-0.035	**	0.003	-0.028	**	0.003
age	0.003	**	0.001	0.003	**	0.001	0.004	**	0.000	0.004	**	0.000
age^2	0.000	**	0.000	0.000	**	0.000	0.000	**	0.000	0.000	**	0.000
no children, wife <40												
youngest child <4	-0.005		0.008	0.007		0.008	0.102	**	0.005	0.101	**	0.005
youngest child >=4	-0.034	**	0.008	-0.020	*	0.009	0.003		0.006	0.007		0.006
no children, wife >=40	-0.057	**	0.011	-0.044	**	0.012	0.024	**	0.008	0.026	**	0.008
education	0.292	**	0.001	0.260	**	0.002	0.142	**	0.001	0.109	**	0.002
* birth year [a)]				0.019	**	0.001				0.018	**	0.001
working hours	0.008	**	0.001	0.000		0.001	0.016	**	0.000	0.017	**	0.000
* birth year [a)]				0.005	**	0.001				0.000	*	0.000
partner's education	0.052	**	0.001	0.052	**	0.002	0.021	**	0.001	0.029	**	0.002
* birth year [a)]				0.000		0.001				-0.004	**	0.001
partner's hourly wage	0.232	**	0.004	0.258	**	0.010	0.080	**	0.001	0.103	**	0.004
* birth year [a)]				-0.016	**	0.005				-0.012	**	0.002
partner's working hours	-0.002	**	0.000	-0.004	**	0.001	-0.003	**	0.000	-0.003	**	0.001
* birth year [a)]				0.001	**	0.000				0.000		0.000
partner no job	-0.100	**	0.008	-0.176	**	0.019	-0.219	**	0.015	-0.169	**	0.037
* birth year [a)]				0.042	**	0.010				-0.027		0.019
R^2	0.45			0.45			0.43			0.43		
N	255,633			255,633			173,091			173,091		

*** p<.01; * p<.05*

[a)] birth year ranges from 0 (1940) to 3.4 (1974)

Source: Labour Force Surveys 1977-2006

3.4.3 Monthly income

The negative effect of the partner's human capital on labour market participation and the positive effect of the partner's human capital on job level were predicted by our hypotheses. We will now address the descriptive question of what the net effect of spouses' human capital is on the combination of working hours and job level: net monthly income. This final step in our analysis will make clear to what extent partner effects push the positive association between spouses' income levels, that are due to educational and occupational homogamy, to a higher level, or to what extent the positive association is repressed. For this purpose, we have performed OLS regressions in which husbands' and wives' net monthly incomes are the dependent variables (see Tables 3.5 and 3.6). In Model 1a, effects of partner's job level and working hours are included separately, next to partner's educational attainment. In Model 1b, we replaced partner's job level and working hours by partner's income, which is the product of the two. Models 2a and 2b show the developments in the effects for cohorts born between 1940 and 1974.

Table 3.5 Monthly income of males: effect of individual and partner's human capital (OLS regression, unstandardized regression coefficients)

MALES	Model 1a			Model 1b			Model 2a			Model 2b		
	b		se	b		se	b		se	b		se
intercept	1710.20	**	2.57	1,699.36	**	2.41	1706.01	**	3.01	1,693.97	**	2.79
birth year [a)]	-52.31	**	0.76	-53.78	**	0.76	-50.99	**	1.16	-52.28	**	0.96
age	-1.67	**	0.14	-1.64	**	0.14	-1.66	**	0.14	-1.61		0.14
age^2	-0.10	**	0.01	-0.11	**	0.01	-0.09	**	0.01	-0.10	**	0.01
no children, wife <40												
youngest child <4	-15.69	**	1.81	-9.31	**	1.80	-15.59	**	1.88	-9.25	**	1.87
youngest child >=4	-14.99	**	1.97	-10.45	**	1.97	-14.27	**	2.03	-9.44	**	2.02
no children, wife >=40	-32.41	**	2.62	-29.01	**	2.63	-31.56	**	2.68	-27.76	**	2.67
education	47.77	**	0.20	48.53	**	0.20	40.54	**	0.45	41.24	**	0.45
* birth year [a)]							4.30	**	0.24	4.33	**	0.24
wife's education	6.42	**	0.24	8.81	**	0.23	7.13	**	0.53	8.76	**	0.51
* birth year [a)]							-0.36		0.28	0.05		0.27
wife's hourly wage	26.48	**	0.91				30.87	**	2.33			
* birth year [a)]							-2.84	*	1.13			
wife's working hours	-1.03	**	0.07				-0.90	**	0.16			
* birth year [a)]							-0.08		0.08			
wife's income (x1,000)				-4.99	**	1.72				-0.56		4.06
* birth year [a)]										-3.38		1.99
wife no job	-18.10	**	1.84	8.95	**	1.14	-18.88	**	4.41	7.03	**	2.52
* birth year [a)]							0.37		2.23	1.16		1.31
R^2	0.26			0.27			0.26			0.26		
N	255,633			255,633			255,633			255,633		

*** p<.01; * p<.05*

[a)] birth year ranges from 0 (1940) to 3.4 (1974)

Source: Labour Force Surveys 1977-2006

The intercept in Model 1a in Table 3.5 represents the estimated monthly net income of a 35-year-old, childless husband, born in 1940, with an average level of education, and a working wife with an average level of human capital: 1710 Euros. The strongest predictor variable is his educational attainment: every year of extra schooling yields 48 Euros per month. On top of that, a successful wife contributes to a man's income as well: 6 Euros for every extra year of schooling and 26 Euros for every extra Euro of hourly wage. We see similar results for women (although husband's educational level has a slight negative effect on income in Model 1a). Obviously, positive partner effects on job level dominate negative effects on labour market participation, resulting in an overall positive influence of partner's human capital on income.

We concluded earlier that partner's labour market participation negatively affects working hours and job level, and thus it is not surprising that the effect of partner's working hours on income is negative. Partner's working hours and job level can be combined in partner's income which summarizes the total effect of the financial position of the partner. As we can see in

Table 3.6 Monthly income of females: effect of individual and partner's human capital (OLS regression, unstandardized regression coefficients)

FEMALES	Model 1a			Model 1b			Model 2a			Model 2b		
	b		se	b		se	b		se	b		se
intercept	1,138.87	**	4.15	1,137.70	**	4.14	1,120.76	**	4.33	1,127.27	**	4.21
birth year [a)]	6.86	**	1.47	3.22	*	1.47	13.31	**	1.58	4.97	**	1.49
age	-0.44		0.23	-0.18		0.24	-0.36		0.24	-0.03		0.24
age^2	0.03	*	0.02	0.02		0.02	0.05	**	0.02	0.03		0.02
no children, wife <40												
youngest child <4	-441.43	**	2.68	-440.65	**	2.69	-439.43	**	2.68	-438.25	**	2.69
youngest child >=4	-414.22	**	3.19	-415.10	**	3.19	-410.05	**	3.20	-410.51	**	3.20
no children, wife >=40	-220.52	**	4.43	-219.94	**	4.44	-216.16	**	4.43	-215.76	**	4.44
education	41.35	**	0.39	43.06	**	0.38	30.97	**	0.93	31.64	**	0.93
* birth year [a)]							5.71	**	0.46	6.30	**	0.46
husband's education	-1.36	**	0.42	3.32	**	0.39	-3.42	**	1.03	-1.50		0.95
* birth year [a)]							1.21	*	0.51	2.67	**	0.47
husband's hourly wage	14.72	**	0.78				11.90	**	2.01			
* birth year [a)]							1.18		0.96			
husband's working hours	-4.66	**	0.20				0.01		0.49			
* birth year [a)]							-2.58	**	0.25			
husband's income (x1,000)				-7.81	*	3.31				19.89	*	8.34
* birth year [a)]										-15.85	**	4.12
husband no job	-43.56	**	8.60	139.26	**	3.99	72.37	**	21.10	70.85	**	9.41
* birth year [a)]							-63.03	**	10.83	39.05	**	4.92
R^2	0.28			0.28			0.28			0.28		
N	173,091			173,091			173,091			173,091		

*** p<.01; * p<.05*

[a)] birth year ranges from 0 (1940) to 3.4 (1974)

Source: Labour Force Surveys 1977-2006

Models 1b in Tables 3.5 and 3.6, partner's income is negatively related to individual income for males and females, whereas partner's educational level remains an important positive contributor to income. Apparently, the human capital of the spouse, which we define as educational attainment and job level, boosts income, but we observe a negative association between husbands' and wives' income on top of the effects of their educational achievements. This is due to the negative association between partners' working hours. Note that the income effects are very small: every 1000 Euros extra income of the wife decreases the income of the husband with 5 Euros (this is 8 Euros for women). In terms of inequality between couples, this means that there is no additional accumulation of income resulting from mutual income benefits, and thus no enlargement of the income differences between couples, on top of the income differences that emerge from homogamy and educational benefits.

What about trends in the effects on income? We will only consider the summarized model with partner's income on respondent's income (Model 2b in Table 3.5 and 3.6). The effect of wives' level of education is unchangeably supportive for men, and the effect of wives' income does not differ between cohorts. For women, husbands' education did not make a difference for the oldest cohort, but has become a supportive force for women's income in younger cohorts. In contrast, husbands' income has become restrictive to the total amount of income the wife earns (from 19.89 Euros for every 1000 Euros extra income of the husband in the 1940-cohort to (19.89-3.4*15.85)=-34 Euros for the 1974-cohort), which means that women, from recent cohorts, with partners who make good money, earn less than their counterparts from earlier cohorts. The declining association between spouses' income levels implies a reduction in the income inequality between couples over birth cohorts.

3.5 Conclusion

In this chapter we investigated how and to what extent human capital of the spouse affects the labour market position of the other spouse. We proposed arguments why partner effects could be positive and negative, and we used the strategy of decomposing income into labour market participation (working hours) and job level (wage rate), in order to understand how partners influence each others' labour market careers. We measured job level in terms of imputed hourly wages. We found that partner's human capital, expressed in educational attainment and job level, negatively affects labour market participation but positively affects job level. We interpreted the negative effect of spouses' human capital on labour market participation as an economic mechanism: people have less incentive to work more hours if their spouses have higher levels of human capital. The positive effect on job level points at a social capital interpretation: male and female labour market careers benefit from the resources of the spouse. The results could also point at a cultural interpretation: highly educated women restrict working hours of their husbands, whereas highly educated men stimulate their wives' careers out of normative reasons. The supportive influence of spouses' human capital dominates when the two conflicting effects are combined in an analysis on income, implying that favourable positions are accumulated within

households. The fact that both supportive and restrictive mechanisms are at work at the same time implies a repressive effect on this accumulation, and thus on inequality between households.

However, the conclusion about inequality between households needs to be refined. A closer look at the association between spouses' income levels reveals that husbands' and wives' incomes are negatively correlated when educational homogamy has been taken into account. It is the negative effect of partner's working hours on income that overrules the positive effect of partner's job level. So, human capital of the spouse does increase income, but the spouse's income does not. On the basis of this small but negative correlation, we can conclude that there is no additional accumulation of income within couples on top of the income accumulation that results from educational homogamy and the mutual influence of spouses' educational levels.

Besides the ways in which partners influence each others' labour market careers, we are also interested in possible changes in these influences. For that purpose, we use a cohort design in which we compare couples born between 1940 and 1974. We find that (a) the restrictive effect of partner's human capital has become stronger for men and weaker for women, and (b) that the stimulating impact of partner's human capital on job level has decreased for men as well as for women. If we consider income, the total effect of these trends results in a stable support of partner's human capital for men and an increasing support for women. These findings falsify the trend hypothesis based on the process of individualization: instead of a general weakening of the influence of the partner, we observe increasing influences in some respects. The findings are more in line with our expectations based on modernization. Men were thought to experience less support and more restriction from their wives' human capital, which matches our results; women were thought to face more support and less restriction from their husband's human capital, which is found to be true as far as labour market participation and monthly income are concerned.

On the basis of the opposing trends for men and women, it is possible to infer conclusions about between-household inequality. The net association between spouses' income levels (controlled for spouses' educational levels) has declined and has even become negative; from this we can assume that the net association between spouses' income levels has decreased over time. We like to stress that inequality between couples depends on more than just this association, but we can conclude that there seems to be an increasing tendency of a high income of the husband coinciding with a lower income of the wife. This conclusion is based on our observation that an individual works fewer hours when the other spouse has more human capital.

The strategy to decompose the effects of one spouse's human capital on the other spouse's income into effects on labour market participation and on job level appears to be fruitful. Firstly, this strategy provides us with more insight into the processes of spouses' mutual influences since opposing mechanisms are at work. Furthermore, it reveals that the influence of partner's working hours opposes the influence of the partner's human capital or, more particularly, the partner's job level. The negative effect of the working hours of one partner on the working hours and job level of the other partner appears to cancel out much of the positive association between spouses' job levels, which has important consequences for income inequality between households.

Chapter 4

Partner's resources and adjusting working hours (1940 – 2003)

We study to what extent adjustments in labour market participation, defined as employment entry and exit, and as increases and reductions of weekly working hours, depend on resources of the partner. Moreover, we investigate whether the influence of the partner depends on historical period, human capital, or children. We are especially interested in the economic-based hypothesis that people are more likely to reduce working hours when their partners have more resources. We use retrospective information on labour market careers of 5,685 respondents and their (ex-)partners (Family Survey Dutch Population 1998-2003). Our results provide little support for the economic hypothesis, and we suggest that family formation and cultural factors are more important predictors for male and female labour market participation adjustments in the Netherlands.

4.1 Introduction

A partner who is successful in the labour market is advantageous for an individual's financial well-being because of the partner's positive contribution to the household income, but might, at the same time, be disadvantageous for individual labour market outcomes, as a result of financial disincentives. This is the essence of the economic hypothesis based on the argument that couples divide labour with efficiency in mind. Households need time and money to function, and since decisions on labour market participation have strong consequences for the availability of time and income in the household, it is indeed plausible that labour market characteristics of both partners contribute to decisions on each spouse's labour market participation (Bernasco, 1994; Blossfeld & Drobnič, 2001). New home economists argue that, to maximize household productivity, the spouse with the highest earning capacities specializes in paid work and that the other partner specializes in unpaid work (Becker, 1981). This hypothesis has been translated into the more

general prediction that the incentive to work long hours is weaker for someone who has a successful partner; also, someone whose partner has a successful career can afford not to work or to work fewer hours (Bernasco, de Graaf, & Ultee, 1998; Hendrickx, Bernasco, & de Graaf, 2001; Sørensen, 1983).

The strength of this economic mechanism has important consequences for the level of social inequality between households since it may soften the effects of homogamy. As a result of educational and occupational homogamy, there is a strong tendency for labour market success to accumulate within households. However, if couples arrange their labour market participation during their relationship in such a way that there is a negative relationship between the labour market success of one spouse and the working hours of the other spouse, the accumulation of resources within households will be partly offset, and inequality between households will be lower than when predicted by homogamy alone.

Earlier research showed mixed and weak support for the economic mechanism behind a couple's labour division. There is some support for a restrictive influence of husbands' human capital on female labour market participation, which is in concordance with the economic hypothesis (Bernardi, 1999; Bernasco, 1994; Davies, Elias, & Penn, 1994; Sørensen, 1983), although it is sometimes only found in couples with children (Hendrickx, Bernasco, & de Graaf, 2001; Lundberg, 1988). However, it has also been concluded that wives' labour market resources (education and income) do not affect husbands' labour market entry or exit (Bernasco, 1994), and others concluded that wives' education is a resource instead of a disincentive for husbands' probabilities to find a job (Brynin & Francesconi, 2004). This challenges the economic hypothesis.

In this chapter we set out to evaluate the economic hypothesis in the Dutch context, and aim to sort out the inconclusiveness of earlier findings. We expect this inconclusiveness about the effect of spouse's resources on labour market participation to be due to a lack of specification. Firstly, we believe the historical context needs to be considered. Much research has shown that over the last decades, attitudes towards working women and mothers have become less traditional (Treas & Widmer, 2000). The traditional male breadwinner model is more and more replaced by other arrangements, also in the Netherlands (see Chapter 2). Since female labour is considered to be both desirable and necessary from both women's and men's point of view (Oppenheimer, 1977), the negative incentive of husbands' resources on wives' working hours may have become weaker, whereas the modern view of equal division of labour might have increased the impact of wives' resources on husbands' working hours adjustments. If the way spouses influence each others' working hours has indeed been subject to change, results depend strongly on the observation window considered. The neglect of a historical perspective in earlier studies might, therefore, be an important reason for the discrepancies between the findings so far. A second condition that may affect the way in which the labour market resources of the spouse influence working hours adjustments is individual human capital. A successful husband might reduce working hours of a poorly educated wife, whereas a successful husband is not enough reason for

a highly educated wife to lower her working hours since this would harm her future career opportunities. The third condition we investigate is the presence of children in the household. We expect that the influence of the spouse's resources is stronger when there are young children in the household, since the presence of young children requires another balance of time and money in the household (Van der Lippe, 2001).

We think that investigating the case of the Netherlands increases the chance of finding support for the economic hypothesis. The Netherlands, known as a part-time working country, has a very large variety in working hours, both for women and for men (Blossfeld & Hakim, 1997). In 2006, 40 per cent of Dutch women between the ages of 15 and 65 are non-employed and are not looking for a job. Of all employed women, a third works full-time and two thirds have part-time jobs ranging from 12 to 34 hours a week. One out of seven Dutch working men has a part-time job, mainly over 20 hours a week (www.cbs.nl/statline), which is high compared to other countries (Delsen, 1998). It is obvious that a cultural climate that allows individual choices is well suited to allow economic grounds to be decisive.

An alternative to economic theory is a more cultural approach. People behave in a certain way because they follow the societal norm or because they act according to their own values. With respect to labour market participation of men and women, societal norms are best described by gender role theory. The role specialization hypothesis suggests that men are responsible for household income, especially if they have a family, and therefore work full-time. Women usually follow an employment pattern that corresponds with the traditional female role: women work full-time until they marry or have children, then they are responsible for the caring tasks until the youngest child is old enough, and finally they often increase working hours again (Myrdal & Klein, 1956; Sørensen, 1983; Van der Lippe & Siegers, 1994). Besides general norms in society, personal values may determine labour market participation decisions. Based on a panel study, Jansen and Kalmijn (2000) found that modern values with regard to young women's emancipation lead to more working hours for women in the Netherlands after the first child is born.

We set out to put the economic hypothesis to a new test. We believe the right test is an analysis of the partner's human capital on the probability of the spouse's entering or leaving the labour market, or increasing or reducing working hours in a time-dependent setup. We will extensively control for individual human capital and the family cycle, and we will consider several kinds of labour market participation adjustments: transitions into and out of employment (entry and exit) and changes in weekly working hours (increase and reduction) of both men and women. Moreover, we will investigate three conditions under which the restrictive effect of spouses' resources is more likely to show up: historical period, the level of individual human capital, and the presence of children. For this purpose, we pooled three waves (repeated cross-sections) from the Family Survey Dutch Population (1998, 2000, and 2003), which include detailed retrospective information on the labour market careers of 5,685 respondents and their spouses. We address the following research questions: (1) To what extent are working hours

adjustments determined by labour market resources of the partner? (2) Under which conditions, specified as historical period, individual human capital, and the presence of children, do partner's resources influence working hours adjustments?

4.2 Theory

4.2.1 The economic hypothesis

The economic hypothesis that we will test can be summarized as follows. If one's spouse has a favourable position on the labour market, one has economic incentives to work less or to stop working completely and has no economic incentives to enter the labour market or to increase working hours (Bernasco, 1994; Hendrickx, Bernasco, & de Graaf, 2001; Sørensen, 1983). We think that the restrictive influence of spouse's resources on adjustments of labour market participation depends on several factors, and we will put forward three expectations in this respect.

4.2.2 Its dependence on historical period

We hypothesize that the role of the spouse in labour market participation decisions has changed over time. According to traditional values about the sexual division of work in marriage, married women should not work—at least not work full-time—and women should make the decision to reduce working hours as soon as the household can afford it, i.e. when the husband makes enough money. These traditional values coincide with the idea of restrictive partner effects, so we expect the restrictive partner effect to be particularly strong for women in earlier decades. Nowadays, the traditional norms about female labour market participation have weakened, so it has become less important for women whether or not a reduction in working hours can be realized. On top of that, due to emancipation processes, women want to work nowadays, regardless of their husbands' position (Bielby & Bielby, 1992; Sørensen, 1983). In sum, we expect that for women, support for the economic hypothesis has become weaker over time. The existence of such a trend has been shown in Britain with respect to female labour market participation after the birth of the first child (Joshi & Hinde, 1993).

With respect to men, we expect the opposite to have occurred. In a traditional view, men are supposed to work full-time, regardless of the household situation, leaving no room for a wife's influence on the number of working hours. The modern view upon the sexual division of work is that there should be more equality between husband and wife. This does not only imply a stimulation for women to work more, but also a stimulation for men to work somewhat less in order to have time to care for children. Moreover, emphasis on a more equal division of labour between husband and wife has loosened the standard of a full-time job, which leaves room for reactions to incentives that come from the wife's labour market situation (Bielby & Bielby, 1992). Therefore, we predict that for men, support for the economic hypothesis has become stronger over time.

4.2.3 Its dependence on individual human capital

We argue that the degree to which the resources of the partner impose work-related incentives depends on the human capital of the individual. We think that men and women with higher levels of human capital make decisions more independently of their spouses' situation. Following the economic argument on the individual level, people with more human capital and corresponding earning capacity have stronger economic incentives to spend time on paid labour and have more to lose if they decide to work less or to stop working completely. That is why they are more inclined to let the impact of their own human capital prevail and act more independently of their spouses. High levels of human capital do not only make division of labour unattractive for individuals; new home economists reason that, also for the household, division of labour becomes less beneficial if the earning capacities of the wife are high (Blossfeld & Huinink, 1991). These arguments lead us to expect that the economic hypothesis will be supported more strongly for people with little human capital than for people with a lot of human capital.

4.2.4 Its dependence on presence of children

We expect the presence of children to be a condition for restrictive partner effects. Childless couples do not experience strong time demands in the household. They will probably not prefer to cut down their working hours at the cost of household income, and thus the economic hypothesis applies only weakly. Couples with children, however, value time more highly at the expense of income. In the Netherlands, couples dislike 'outsourcing' their children for five days a week (Portegijs, Hermans, & Lalta, 2006), so the presence of young children induces a preference for fewer working hours. In such a situation, it becomes important whether or not one of the two spouses is successful enough to make it affordable for the other spouse to work less. In other words, when children are born, the economic incentives become more prevalent, and thus we argue that the economic hypothesis will find stronger support for couples with children than for couples without children. Hakim (2000) argued that women do not make a choice between work and family until they get married or have children. This might imply that the labour market situation of the husband has no influence before the couple has children, and becomes of influence only when children are born. Indeed, Lundberg (1988) found a negative effect of the husband's income on his wife's labour market participation only if the couple had children, and Hendrickx et al. (2001) showed that the husband's income lowers his wife's likelihood to re-enter the labour market if the couple has children.

4.3 Data

We use three waves of the Family Survey Dutch Population: 1998, 2000, and 2003 (de Graaf, de Graaf, Kraaykamp, & Ultee, 1998; 2000; 2003). The surveys cover the Dutch population between the ages of 18 and 70 with an overrepresentation of couples, and are representative with respect to region, sex, age, and education. The data are based on structured face-to-face interviews and self-completion questionnaires, which were identical for primary respondents and their cohabiting or

marital partners (secondary respondents). The net response rate varies between 40.6 and 52.6 per cent, which is normal for this kind of survey design in the Netherlands. In total, 5,764 respondents (primary respondents and their partners) have been interviewed. Our analyses will be based on a sample of 5,685 individuals who are 20 years or older at the moment of the interview. A retrospective design has been used in which respondents were asked to reconstruct, with exact dates, their careers in several domains. This means that every change in these domains of life, and the times of these changes, are recorded. As a result, the data contain complete labour market and demographic careers of the respondent and his or her partner until the moment of interview. On the basis of this retrospective information we construct a person-month file. We start observing each respondent in the month after one finished school, and end observing him or her at the moment of survey. We analyse working hours adjustments of all women and men in our data, regardless of whether they were primary or secondary respondents, and we base the analysis on the months in which respondents were between 20 and 55 years of age.

4.3.1 Changes in labour market participation

We are interested in four possible changes in labour market participation: employment entry, employment exit, increase of working hours, and reduction of working hours. We apply logistic regression analyses on the person-month file to establish effects of independent variables on the probability to experience each of these four events. Employment entry is defined as finding a job after a period of non-employment, and we record the transition into employment in the month the respondent found a job. The risk set for the analysis on employment entry consists of all months in which respondents do not have a job. Employment exit is defined as exactly the opposite: a transition from an employment situation to a non-employment situation, and the risk set consists of all months in which respondents have a job. Working hours represent actual working hours, and changes therein can be either within a job or between jobs, which are both recorded in our data. An increase of at least eight hours a week is considered as a transition into more working hours. This means that we only regard at least one working day more a week as a substantial change in the total number of working hours for the household. We top-coded the number of working hours at 40 hours a week, so obviously, only in months that the respondent works 32 hours at the most, he or she is at risk to increase working hours. Analogously, a reduction of eight or more hours a week is regarded as a transition into fewer working hours, and respondents are only at risk in the months they work at least 9 hours a week. In a sensitivity analysis, we top-coded the number of weekly working hours at 60 instead of 40. A major consequence is the strong increase of the number of events, especially for males. Apparently, increases and reductions of actual working hours often take place in the top of the hours distribution. We decided to set the maximum at 40 hours a week, since this is the usual maximum number of working hours since the 1970s. Results from the sensitivity analysis will be discussed. Descriptive information on the events is displayed in Table 4.1.

Table 4.1 Number of events for females and males by the extent to which their labour market participation changed

	entry into…		exit from… [a)]			more hours		fewer hours	
	females	males	females	males		females	males	females	males
1 day	126	8	46	3	8-15 hours	282	108	437	109
2 days	289	5	129	2	16-23 hours	161	45	335	40
3 days	287	24	252	16	24-31 hours	48	23	115	20
4 days	201	36	216	29	32-39 hours	19	11	45	11
5 days	338	763	1199	679					
total	1241	836	1842	729	total	510	187	932	180

[a)] for 3 women and 1 man, it is not known how many days they worked before they left the labour market
Source: Family Survey Dutch Population 1998, 2000, 2003

4.3.2 Relationship status, partner's labour market resources, and control variables

There are two general approaches to analyse the influence of independent variables on events. The first approach is based on the idea that the decision to change one's working hours is a response to another change in the couple's life. For example, the reduction of working hours of the wife may be the consequence of an increase in the husband's occupational status. In this approach, both the independent and the dependent variables are measured as events. We did not choose this approach because we think that people do not react instantly to an event, and because it is difficult to determine or estimate how long the time lag between the events will be. To overcome this problem, we have chosen for a second approach, i.e. to model the independent variables as states (or situations). For example, we will estimate a model in which the occupational status of the husband is the independent variable and the reduction of working hours of the wife is the dependent variable.

We distinguish four categories of relationship status: singleness, non-cohabiting relationship, unmarried cohabitation, and marriage. This time dependent variable is based on the start and end date of the relationship between the respondent and his or her (ex-)partner, and on the dates that they moved to another relational category, for example from a non-cohabiting relationship to unmarried cohabitation. For former relationships, only cohabiting or married relationships could be distinguished.

Information on partner's labour market resources has been added in all months that the respondent had a relationship (non-cohabiting, cohabiting, or married) with that specific partner. Our information on the respondent's partner at the moment of interview is complete; for ex-partners, educational attainment is known in the 1998 and 2000 surveys, and last occupation only in the 1998 survey. We consider three partner characteristics. Education has been measured in years of schooling, varying from six years for elementary education to 20 years for a postgraduate degree[1]. A dummy variable indicates whether or not the partner has a job (employed=0 and non-

[1] primary education=6 years, lower vocational education and lower secondary education=10 years, intermediate secondary education and reduced intermediate vocational education=11 years, higher secondary education=12 years, intermediate vocational education=13 years, higher vocational education=15 years, university=17 years, post-academic education=20 years.

employed=1). We also tested a measure of spouse's labour market participation that distinguishes between non-employment, a small part-time job (1-19 hours), a large part-time job (20-34 hours), and a full-time job (35-40 hours). Because we found that the effects of the three employment categories did not differ significantly from each other, we decided to use the dichotomized measure of spouse's employment. If the spouse has a job, we measure his or her occupational status by ISEI. As an alternative way to measure the impact of the partner's resources, we have constructed difference scores between the respondent's and the partner's educational level and ISEI. This approach shows to what extent it matters whether the partner is higher educated or has a higher occupational status than the respondent, which is more closely related to the ideas of new home economics. Results of this sensitivity analyses will be discussed; results reported in the models refer to the general way of measuring partner's resources. All partner variables are time dependent. Missing values on partner's educational level and occupational status have been imputed with mean scores. For the partners for whom missing values are the result of the absence of a job, the dummy variable with score 1 for partner's joblessness takes account of the missing cases. For the partners for whom missing values indicate real missing information, dichotomous indicators have been included in the models (coded 1 for missing); the effects of these indicators are not shown in the tables.

We have a relatively large set of indicators of individual human capital to ascertain that effects of the spouse's labour market resources are not confounded with the effects of one's own human capital. Educational attainment has been measured in years of schooling (6-20 years). Occupational status has been measured by the International Socioeconomic Index (ISEI) (Ganzeboom, de Graaf, & Treiman, 1992). In the months in which people are non-employed (and thus at risk of experiencing employment entry), we used the occupational status of the last job (if any, otherwise we have a missing case). Work experience is the total number of months (transformed into years) that a person has been employed at a particular moment. During non-employment spells, the amount of work experience remains unchanged, and continues to rise again in the month a new employment spell starts. We added a quadratic term of work experience as well, so that the duration effect is well covered. A dummy variable indicates whether or not people have any supervisory authority over other employees. In case of non-employment, we again included the information on the last job. Finally, the number of weekly working hours ranges from 1 up to 40. Missing values on education, (last) occupational status, and working hours have been imputed with mean scores, and dummy variables (score 1 if initial value is missing) have been added to the models (but will not be shown in the tables); missing values on (last) supervisory authority have been captured in an extra category. All five human capital indicators are time dependent except for education, since people start to be at risk after finishing education. Religiosity is included as a proxy for traditional values. If either the respondent or the partner (if any) is religious, we assume the couple to be religious.

The presence and age of children is classified in four categories and vary over the life course: no children, youngest child is under the age of four, youngest child is four years or older

and still living in the household, and children have left the parental home (empty nest). A fifth category comprises missing values. This information is based on the dates of birth of all children, the dates that each child has left the parental home (if there is missing information, we assume the child left home at age 18) and, in exceptional cases, the dates of children's death. We do know whether respondents have children from prior relationships, but we have no information on where they are living. These children are assumed to have left the home of the father after the divorce, and to live in the household of widowed fathers and divorced or widowed mothers (until the age of 18).

In all models we include controls for historical period and duration of being at risk. Historical period is controlled for by means of five dummy variables: 1940-1959, 1960-1969, 1970-1979, 1980-1989, and 1990-2003. To test whether partner effects have changed over time, we construct linear interaction terms between, for example, partner's education and year, in which year has been recoded to 0 for the first period, and to 1.5, 2.5, 3.5, and 4.7 for the four other periods. This implies that historical changes can be interpreted in decades. The duration of being at risk of experiencing employment entry, employment exit, or an increase or reduction in working hours, respectively, has been divided into five categories: less than two years, two to four years, five to nine years, ten years or more, and a category that comprises missing values. We will not control for age because it correlates strongly with work experience, especially for men. In addition, we believe that the effects of the life course are captured sufficiently by the relationship status and the age of the children.

All independent variables, apart from historical period and duration, are lagged one month to ascertain that they represent the situation before the transition took place. The analyses will be done separately for men and women. Table 4.2 shows descriptive statistics for all independent variables for females and males.

Table 4.2 Statistics of independent variables for females and males, based on the sample of months in which they are aged between 20 and 55 and the respondent is at risk of labour market entry and exit respectively (average of all months per respondent)

	at risk of labour market entry						at risk of labour market exit					
	females			males			females			males		
	N	mean	st dev	N	mean	st dev	N	mean	st dev	N	mean	st dev
historical period												
year 1940-1959	1,890	0.02		1,113	0.07		2,519	0.05		2,542	0.03	
year 1960-1969	1,890	0.08		1,113	0.08		2,519	0.09		2,542	0.07	
year 1970-1979	1,890	0.17		1,113	0.14		2,519	0.13		2,542	0.14	
year 1980-1989	1,890	0.28		1,113	0.32		2,519	0.22		2,542	0.24	
year 1990-2003	1,890	0.47		1,113	0.40		2,519	0.52		2,542	0.52	
duration at risk												
duration < 2 years	1,890	0.32		1,113	0.64		2,519	0.22		2,542	0.13	
duration 2-4 years	1,890	0.15		1,113	0.12		2,519	0.19		2,542	0.12	
duration 5-9 years	1,890	0.25		1,113	0.13		2,519	0.39		2,542	0.29	
duration >= 10 years	1,890	0.27		1,113	0.12		2,519	0.20		2,542	0.46	
missing value duration	1,890	0.00		1,113	0.01		2,519	0.01		2,542	0.01	

Table 4.2 Continued…

	at risk of labour market entry						at risk of labour market exit					
	females			males			females			males		
	N	mean	st dev	N	mean	st dev	N	mean	st dev	N	mean	st dev
human capital												
education in years (6-20) [a]	1,879	11.11	3.07	1,110	12.05	3.28	2,510	11.80	3.00	2,533	12.09	3.26
occupational status (10-88) [a] [b]	1,539	45.56	14.31	678	42.45	14.37	2,503	47.05	14.04	2,530	48.06	14.10
work experience (0-39) [a]	1,890	6.34	5.91	1,113	5.92	9.65	2,519	7.53	5.03	2,542	11.67	6.17
work experience square (0-1521) [a]	1,890	77.56	150.24	1,113	131.21	297.14	2,519	102.48	124.55	2,542	220.25	181.43
supervising [b]	1,890	0.10		1,113	0.11		2,519	0.15		2,542	0.35	
not supervising [b]	1,890	0.69		1,113	0.46		2,519	0.82		2,542	0.64	
missing value supervising [b]	1,890	0.21		1,113	0.43		2,519	0.03		2,542	0.01	
working hours (3-40) [a]							2,507	31.74		2,536	38.62	
religiosity												
respondent and/or partner religious	1,890	0.59		1,113	0.53		2,519	0.57		2,542	0.55	
respondent and partner not religious	1,890	0.37		1,113	0.43		2,519	0.39		2,542	0.41	
missing value religiosity	1,890	0.04		1,113	0.04		2,519	0.04		2,542	0.03	
children												
no children in household	1,890	0.25		1,113	0.69		2,519	0.66		2,542	0.51	
youngest child < 4	1,890	0.39		1,113	0.11		2,519	0.12		2,542	0.22	
youngest child >=4	1,890	0.30		1,113	0.15		2,519	0.17		2,542	0.23	
empty nest	1,890	0.06		1,113	0.06		2,519	0.04		2,542	0.04	
missing value children	1,890	0.00		1,113	0.00		2,519	0.00		2,542	0.00	
relationship status												
single	1,890	0.10		1,112	0.30		2,517	0.15		2,542	0.15	
non-cohabiting relationship	1,890	0.05		1,112	0.25		2,517	0.22		2,542	0.14	
unmarried cohabitation	1,890	0.08		1,112	0.10		2,517	0.15		2,542	0.12	
marriage	1,890	0.76		1,112	0.35		2,517	0.48		2,542	0.58	
partner's resources												
partner's education (6-20) [a] [c]	1,659	11.85	3.31	810	11.58	3.23	2,216	12.22	3.18	2,289	11.54	3.03
partner job [c]	1,766	0.79		863	0.49		2,366	0.79		2,395	0.53	
partner no job [c]	1,766	0.13		863	0.44		2,366	0.13		2,395	0.39	
missing value partner job [c]	1,766	0.07		863	0.08		2,366	0.08		2,395	0.08	
partner's occupational status (10-88) [a] [d]	1,490	48.14	14.92	535	47.37	15.47	2,033	48.46	14.68	2,044	47.01	14.07
N respondents	*1,890*			*1,113*			*2,519*			*2,542*		
N months	*324,859*			*90,267*			*381,022*			*634,233*		
N events	*1,241*			*836*			*1,845*			*730*		

[a] only from non-missing observations
[b] in analysis on labour market entry, occupational status and supervising refer to last job
[c] average of the months in which respondent has a partner (N respondents: female entry 1766; male entry 863; female exit 2366; male exit 2395)
[d] average of the months in which respondent has a working partner (N respondents: female entry 1500; male entry 540; female exit 2045; male exit 2054)
Source: Family Survey Dutch Population 1998, 2000, 2003

4.4 Results

Before we consider the impact of partner's resources on changes in labour market participation, we first pay attention to the impact of having a partner. Tables 4.3 and 4.4 show the results of relationship status for females and males respectively. Married women are clearly less likely to extend their labour market participation—that is to enter the labour market or to increase their

weekly number of working hours—than single women, but also compared to women with a (non-)cohabiting relationship. At the same time, labour market exit and reduction of working hours are much more common among married women, followed by unmarried cohabiting women, non-cohabiting, and single women. The differences are substantial: compared to single women, married women are about half as likely to enter the labour market and to increase their working hours, almost 4.5 times as likely to leave the labour market, and over three times as likely to reduce their working hours. This pattern perfectly corroborates the role theory that emphasizes women's caring role if they have a family.

Adjustments in male labour market participation depend on relational status as well, although to a lesser extent than women's. Exit chances are lowest for married men, but also (non-)cohabiting men are less likely to leave the labour market than single men. Furthermore, married men and men in a non-cohabiting relationship have higher probabilities of increasing their working hours and lower probabilities of reducing their working hours than single men, and they do not differ significantly from cohabiting men. This is in line with male role expectations: men who are responsible for a family show stronger labour market attachment[2].

The models in Tables 4.3 and 4.4 that are only based on respondents with a partner, reveal to what extent adjustments in labour market participation of women and men depend on the resources of the partner. If people make such decisions on economic grounds, there should be a negative relationship between partner's education, occupational status, and employment on the one hand, and increases in labour market participation on the other hand, and a positive relationship between partner's resources and decreases of labour market participation. Overall, we have to conclude that such a relationship is not found, and that our results do not support the economic hypothesis. Among many non-significant effects, we do however find two exceptions: women with highly educated husbands are more likely to work one day or more a week less (b=0.050; exp(b)=1.051), and the higher the education of his wife, the less likely it is for a man to increase his weekly working hours (b=-0.077; exp(b)=0.926). Furthermore, there are some indications of opposite partner effects. This means that a resourceful spouse does not restrict the other spouse's labour market participation, but enhances it. We find, for example, that a woman whose husband has a high occupational status is less likely to leave the labour force, and is more likely to increase her working hours. To put it differently, male success on the labour market coincides with a high female labour market participation. For men, we observe a supportive effect of wives' employment status on the likelihood of labour market exit: men with non-employed

[2] A sensitivity analysis, in which we set the maximum number of working hours to 60, shows partly different effects of relationship status. The higher probability to reduce working hours for women with a partner does apply to all kinds of relationships when a maximum of 40 hours is considered, but does not apply to women with a non-cohabiting relationship when a maximum of 60 is considered. The smaller probability to reduce working hours for men who are married or have a non-cohabiting relationship and the higher probability of married men to increase working hours, is not replicated in the analysis with a maximum of 60 hours.

Table 4.3 Logistic regression coefficients on females' probability of labour market entry and exit and transitions into more and fewer hours

FEMALES	**entry**				**exit**				**more hours**				**fewer hours**			
	all respondents		**with partner**		**all respondents**		**with partner**		**all respondents**		**with partner**		**all respondents**		**with partner**	
	b	se	b	se	b	se	b	se	b	se	b	se	b	se	b	se
intercept	-5.318 **	0.208	-6.255 **	0.230	-5.007 **	0.192	-3.361 **	0.201	-4.217 **	0.399	-5.243 **	0.473	-11.680 **	0.380	-10.825 **	0.408
year 1940-1959	-0.117	0.248	-0.516	0.358	0.031	0.123	0.144	0.132	-0.783	0.766	n.e.		-0.250	0.395	-0.224	0.452
year 1960-1969	0		0		0		0		0		0		0		0	
year 1970-1979	0.366 **	0.133	0.433 **	0.147	-0.478 **	0.079	-0.609 **	0.082	0.325	0.330	0.363	0.382	0.399 *	0.203	0.413	0.217
year 1980-1989	0.451 **	0.129	0.525 **	0.144	-0.920 **	0.081	-1.105 **	0.085	0.502	0.306	0.630	0.355	0.838 **	0.190	0.807 **	0.206
year 1990-2003	0.905 **	0.126	1.014 **	0.141	-0.962 **	0.082	-1.168 **	0.086	0.677 *	0.302	0.801 *	0.351	1.268 **	0.188	1.222 **	0.204
duration < 2 years	0		0		0		0		0		0		0		0	
duration 2-4 years	-0.563 **	0.091	-0.506 **	0.101	-0.140	0.088	-0.035	0.095	-0.215	0.125	-0.131	0.138	-0.124	0.117	-0.092	0.124
duration 5-9 years	-0.862 **	0.080	-0.777 **	0.087	-0.101	0.086	-0.049	0.092	-0.154	0.130	-0.071	0.141	-0.162	0.119	-0.163	0.125
duration >= 10 years	-1.842 **	0.100	-1.717 **	0.108	-0.309 *	0.122	-0.233	0.128	-0.182	0.195	-0.021	0.209	-0.206	0.165	-0.210	0.173
human capital																
education	0.082 **	0.011	0.089 **	0.013	-0.052 **	0.009	-0.057 **	0.011	0.041 *	0.019	0.054 *	0.022	0.053 **	0.014	0.030	0.016
occupational status [a)]	0.004	0.002	0.003	0.002	-0.006 **	0.002	-0.005 **	0.002	0.001	0.003	0.002	0.004	-0.013 **	0.002	-0.014 **	0.003
work experience	-0.003	0.017	-0.006	0.018	-0.038 *	0.016	-0.035 *	0.017	-0.117 **	0.022	-0.116 **	0.024	-0.007	0.021	-0.005	0.023
work experience square	-0.001	0.001	-0.001	0.001	0.000	0.000	0.000	0.001	0.002 **	0.001	0.002 **	0.001	-0.001	0.001	-0.001	0.001
supervising [a)]	0.074	0.095	0.051	0.101	-0.253 **	0.070	-0.246 **	0.075	-0.235	0.155	-0.194	0.166	-0.303 **	0.092	-0.319 **	0.096
working hours [b)]					0.026 **	0.003	0.028 **	0.003	-0.053 **	0.006	-0.061 **	0.006	0.120 **	0.007	0.127 **	0.007
religiosity																
respondent and/or partner religious	-0.161 **	0.061	-0.144 *	0.066	0.050	0.051	0.130 *	0.054	-0.070	0.093	-0.099	0.102	0.005	0.070	0.016	0.074
children																
no children	0		0		0		0		0		0		0		0	
youngest child < 4	-0.776 **	0.091	-0.720 **	0.098	0.307 **	0.067	0.315 **	0.068	-1.086 **	0.176	-1.135 **	0.185	0.917 **	0.090	0.940 **	0.092
youngest child >= 4	0.254 **	0.095	0.280 **	0.105	-0.791 **	0.094	-0.771 **	0.097	-0.249	0.137	-0.265	0.146	-0.353 *	0.137	-0.337 *	0.143
empty nest	-0.482 **	0.170	-0.552 **	0.192	-0.123	0.147	-0.167	0.161	-1.132 **	0.314	-1.254 **	0.344	-0.615 *	0.279	-0.602 *	0.302
relationship status																
single	0		n.a.		0		n.a.		0		n.a.		0		n.a.	
non-cohabiting relationship	0.253 *	0.125	0.898 **	0.120	0.100	0.105	-1.529 **	0.086	0.158	0.168	0.865 **	0.164	0.312 *	0.155	-0.890 **	0.121
unmarried cohabitation	-0.072	0.125	0.535 **	0.111	0.747 **	0.117	-0.722 **	0.089	-0.046	0.162	0.612 **	0.146	0.874 **	0.144	-0.298 **	0.098
marriage	-0.556 **	0.098	0		1.491 **	0.092	0		-0.630 **	0.152	0		1.166 **	0.133	0	
partner's resources																
partner's education			0.018	0.012			0.008	0.010			-0.027	0.019			0.050 **	0.015
partner no job			-0.169	0.098			0.012	0.077			0.159	0.149			-0.013	0.110
partner's occupational status			-0.001	0.003			-0.004 *	0.002			0.009 *	0.004			-0.005	0.003
N respondents	*1,890*		*1,766*		*2,519*		*2,366*		*1,637*		*1,561*		*2,492*		*2,342*	
N respondent-months	*324,869*		*302,838*		*381,042*		*324,099*		*176,688*		*164,855*		*358,358*		*303,085*	
N events	*1,241*		*1,076*		*1,845*		*1,685*		*510*		*432*		*932*		*859*	

*** p<.01; * p<.05; n.a. not applicable; n.e. not estimated*

[a)] in the analysis on labour market entry, occupational status and supervising authority refer to last job

[b)] in the analysis on labour market entry, working hours are not included

Source: Family Survey Dutch Population 1998, 2000, 2003

Table 4.4 Logistic regression coefficients on males' probability of labour market entry and exit and transitions into more and fewer hours

MALES	entry				exit				more hours				fewer hours			
	all respondents		with partner		all respondents		with partner		all respondents		with partner		all respondents		with partner	
	b	se	b	se	b	se	b	se	b	se	b	se	b	se	b	se
intercept	-3.218 **	0.213	-3.128 **	0.351	-4.488 **	0.450	-4.925 **	0.603	-3.311 **	0.580	-2.127 **	0.772	-9.253 **	0.885	-9.275 **	1.111
year 1940-1959	-0.082	0.160	-0.187	0.232	0.161	0.196	0.227	0.296	0.127	0.576	-0.490	0.732	-0.059	0.594	0.238	0.820
year 1960-1969	0		0		0		0		0		0		0		0	
year 1970-1979	0.018	0.141	0.016	0.188	0.051	0.155	0.092	0.203	-0.149	0.417	-0.246	0.459	0.125	0.390	0.193	0.479
year 1980-1989	0.057	0.127	0.135	0.176	0.340 *	0.141	0.492 **	0.189	0.199	0.375	0.134	0.415	0.749 *	0.349	0.658	0.446
year 1990-2003	0.144	0.131	0.168	0.179	0.234	0.144	0.371	0.193	0.157	0.367	0.212	0.415	0.885 *	0.344	0.686	0.445
duration < 2 years	0		0		0		0		0		0		0		0	
duration 2-4 years	-0.416 **	0.090	-0.442 **	0.113	-0.588 **	0.120	-0.770 **	0.162	-0.075	0.191	-0.122	0.219	-0.147	0.262	0.083	0.321
duration 5-9 years	-1.706 **	0.125	-1.872 **	0.154	-1.107 **	0.133	-1.170 **	0.158	-0.231	0.223	-0.236	0.247	-0.630 *	0.271	-0.538	0.333
duration >= 10 years	-3.532 **	0.271	-3.703 **	0.327	-1.814 **	0.197	-1.875 **	0.216	-0.541	0.370	-0.464	0.381	-1.416 **	0.368	-1.046 *	0.429
human capital																
education	0.010	0.013	0.016	0.017	-0.020	0.014	-0.030	0.018	0.064 *	0.031	0.075	0.038	0.159 **	0.030	0.129 **	0.037
occupational status [a)]	0.000	0.003	0.002	0.004	-0.012 **	0.003	-0.013 **	0.004	-0.022 **	0.006	-0.015 *	0.007	-0.007	0.006	-0.006	0.007
work experience	-0.023	0.019	-0.005	0.022	-0.064 **	0.021	-0.055 *	0.024	-0.063	0.038	-0.057	0.042	0.098 *	0.044	0.054	0.050
work experience square	-0.001	0.001	-0.001	0.001	0.002 **	0.001	0.002 **	0.001	-0.001	0.001	-0.001	0.001	-0.003 *	0.001	-0.002	0.001
supervising [a)]	0.089	0.119	0.009	0.140	-0.375 **	0.093	-0.268 **	0.104	-0.831 **	0.258	-0.733 **	0.276	-0.578 **	0.181	-0.571 **	0.201
working hours [b)]					0.003	0.010	0.000	0.011	-0.037 **	0.008	-0.044 **	0.010	-0.002	0.017	-0.018	0.018
religiosity																
respondent and/or partner religious	-0.093	0.075	-0.071	0.093	0.010	0.080	-0.054	0.095	-0.055	0.164	0.026	0.189	-0.265	0.160	-0.335	0.183
children																
no children	0		0		0		0		0		0		0		0	
youngest child < 4	-0.305 *	0.147	-0.386 *	0.160	0.114	0.143	0.054	0.155	-0.464	0.257	-0.509	0.278	-0.198	0.246	-0.207	0.261
youngest child >= 4	-0.563 **	0.179	-0.651 **	0.192	0.175	0.164	0.037	0.182	-0.310	0.342	-0.428	0.363	-0.040	0.280	-0.041	0.308
empty nest	-0.721 **	0.277	-0.872 **	0.309	0.203	0.233	-0.018	0.265	-0.342	0.776	-0.408	0.796	-0.450	0.570	-0.502	0.671
relationship status																
single	0		n.a.		0		n.a.		0		n.a.		0		n.a.	
non-cohabiting relationship	0.341 **	0.090	0.178	0.135	-0.331 **	0.111	0.399 **	0.148	0.707 **	0.233	0.204	0.246	-0.622 *	0.270	-0.155	0.293
unmarried cohabitation	0.269 *	0.130	0.119	0.147	-0.414 **	0.149	0.314	0.163	0.303	0.260	-0.168	0.260	-0.488	0.271	0.031	0.273
marriage	0.113	0.127	0		-0.683 **	0.131	0		0.522 *	0.259	0		-0.561 *	0.245	0	
partner's resources																
partner's education			-0.003	0.019			0.011	0.019			-0.077 *	0.036			0.062	0.038
partner no job			-0.138	0.095			0.355 **	0.098			-0.074	0.200			-0.040	0.201
partner's occupational status			0.000	0.004			-0.006	0.005			-0.001	0.008			-0.002	0.008
N respondents	*1,113*		*863*		*2,542*		*2,395*		*351*		*290*		*2,534*		*2,391*	
N respondent-months	*90,273*		*71,319*		*634,253*		*556,966*		*28,901*		*24,546*		*627,726*		*551,637*	
N events	*836*		*559*		*730*		*523*		*187*		*150*		*180*		*138*	

** *p<.01;* * *p<.05;* *n.a. not applicable*

[a)] *in the analysis on labour market entry, occupational status and supervising authority refer to last job*

[b)] *in the analysis on labour market entry, working hours are not included*

Source: Family Survey Dutch Population 1998, 2000, 2003

wives are more likely to leave the labour market; or, in other words, men with employed wives are less likely to become non-employed[3] [4].

If we measure the effect of partner's resources as a difference score between partner's and respondent's education and occupational status, all partner effects reported above become non-significant except for the effect of husbands' education on the probability of reducing working hours for women: a woman is more likely to reduce working hours if her husband is higher educated than she is. We have to conclude that neither way of measuring partner effects leads to clear support for the economic hypothesis.

A brief look at other interesting results from our analysis shows that individual human capital enhances labour market participation of women and restrains them from lowering their working hours (except for the positive effect of female education on the odds of reducing working hours), whereas for men results are mixed: highly educated men are both more likely to increase and reduce their working hours, and occupational status reduces the likelihood of both labour market exit and increasing working hours. Furthermore, women are found to be more likely to stop working and are less likely to become employed if they (and/or their partner) are religious. Finally, the presence of young children has a strong positive effect on labour market exit and reduction of working hours of women, while it negatively affects women's labour market entry and increase of working hours. When children are at a school-going age, it is the other way round: women are more likely to increase their labour market participation and less likely to reduce it. Children hardly affect male decisions with respect to labour market participation, except for the finding that men are less likely to become employed when they have children.

Although we find no strong support for the economic mechanism so far, we think it is too early to reject it completely. We suggested that the restrictive effect of partners' resources might very well be present only in certain situations. To test these hypotheses, we include interaction terms between partner's resources on the one hand, and historical period, human capital, and children on the other hand. The results are displayed in Table 4.5 for women and in Table 4.6 for men. The upper panel considers the historical perspective. We had expected that the economic mechanism was mainly important for women in earlier decades. Evidence is not very convincing; we only find that the negative relationship between husbands' employment status and women's odds of becoming non-employed in earlier decades has turned positive in recent decades. The trend for the odds of reducing working hours is similar, but the negative effect of husbands' employment status has never been significant in our observation period. The hypothesis that men would experience more restriction from their partners' resources nowadays than they did in the

[3] Additional analyses have revealed that the economic hypothesis would not get more support if partner's education and partner's occupational status are included separately, instead of together. Although the two effects are mostly non-significant, the effects go in different directions; so the one does not serve as an explanation for the other. Effects of partner's education or partner's occupational status on adjustments of female labor market participation all become non-significant if the other variable is left out.

[4] Conclusions about effects of partner's resources do not alter if the maximum number of working hours is set to 60.

past needs to be rejected completely. It is surprising that, despite the major societal changes with respect to attitudes towards division of labour, the way spouses affect each other has not changed that much. The neglect of a historical perspective in most earlier research does not seem to be the reason for the inconclusiveness of the findings.

A second condition we study is individual human capital, and we expect that decisions concerning labour market participation of people with a lot of human capital are less influenced by their partners' resources, and that the economic mechanisms will mainly apply to people with little human capital. In general, support is very meagre again. There are hardly any significant interaction terms in the second panel of Tables 4.5 and 4.6. Indeed, there is some proof that men and women with much human capital make labour market participation decisions more independently of their spouses' resources than their counterparts with little human capital. However, it usually seems that partners' resources enhance instead of restrict labour market participation of people with little human capital, which contradicts our hypothesis. For example, a highly educated wife increases the odds of entering and decreases the odds of leaving the labour force of a poorly educated man, but wives' education does not affect the same odds of highly educated men (0.151-14*0.012=-0.017 for entry; -0.125+14*0.012=0.043 for exit). The sole finding that is in line with our hypothesis is that poorly educated men are hindered in increasing their working hours when their wives have higher occupational status, whereas highly educated men with comparable wives are not.

Finally, we test whether the economic mechanism holds under the condition that the couple has children. Child birth often requires more time investments in the household at the expense of time investments on the labour market. It seems likely that this is the moment for couples to base working hours adjustments on economic considerations. This hypothesis finds partial support (see lowest panel in Tables 4.5 and 4.6). Childless women's decisions to leave the labour force are independent of their husbands' educational achievement, but mothers are more likely to leave the labour force if they have highly educated husbands. Not exactly the same, but in the same direction, are the effects on women's probability to enter the labour market: whereas childless women can benefit from their husbands' education and occupational status, mothers find no support from their husbands' resources. Although these results do not indicate that mothers' entry chances are restricted by the resources of their husbands, they do show that mothers benefit less from their partners' resources than childless women. Men appear to be less likely to increase their working hours as their partners' occupational status increases, but only if they have young children, which supports our hypothesis too. However, we would like to note that many of the interaction effects are non-significant, and that the restrictive partner effect for couples with children is predominantly found for women. We will come back to the latter in the next section. With respect to the effect of an empty nest, the results for women suggest that in this life stage, the tendency to stop working or to diminish working hours is higher if the partner is (already) non-employed. We interpret this effect as couples' tendency to jointly start retreating from the labour market at the end of their working lives.

Table 4.5 Influence of the spouse by individual human capital, children, and year on females' probability of labour market entry or exit and the transition into more or fewer hours [a)]

FEMALES	entry		exit		more hours		fewer hours	
	b	se	b	se	b	se	b	se
partner's resources * year								
partner's education	0.037	0.034	0.039 *	0.020	-0.080	0.073	0.015	0.047
* year (0-4.7)	-0.005	0.009	-0.010	0.006	0.013	0.017	0.009	0.012
partner no job	0.277	0.355	-0.774 **	0.207	0.999	0.663	-0.973	0.502
* year (0-4.7)	-0.117	0.091	0.246 **	0.057	-0.207	0.161	0.240 *	0.120
partner's occupational status	-0.005	0.008	-0.001	0.005	0.018	0.018	0.003	0.011
* year (0-4.7)	0.001	0.002	-0.001	0.001	-0.002	0.004	-0.002	0.003
partner resources * human capital								
partner's education	0.064	0.038	0.045	0.031	0.060	0.074	0.149 **	0.056
* education	-0.004	0.003	-0.003	0.003	-0.007	0.006	-0.008	0.004
partner's education	0.059	0.034	-0.003	0.026	0.079	0.051	0.013	0.038
* occupational status [b)]	-0.001	0.001	0.000	0.001	-0.002 *	0.001	0.001	0.001
partner no job	-0.319	0.380	-0.484	0.284	0.273	0.678	-0.054	0.492
* education	0.013	0.031	0.043	0.024	-0.008	0.051	0.003	0.038
partner no job	-0.081	0.340	-0.090	0.242	0.625	0.426	0.071	0.352
* occupational status [b)]	-0.002	0.007	0.002	0.005	-0.010	0.008	-0.002	0.007
partner's occupational status	0.002	0.009	-0.005	0.008	0.020	0.017	-0.002	0.012
* education	0.000	0.001	0.000	0.001	-0.001	0.001	0.000	0.001
partner's occupational status	0.008	0.008	-0.006	0.006	0.023 *	0.011	-0.009	0.008
* occupational status [b)]	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
partner's resources * child situation								
partner's education	0.071 **	0.021	-0.011	0.012	-0.027	0.026	0.041 *	0.018
* no child (ref)								
* child <4	-0.070 *	0.027	0.048 *	0.019	-0.025	0.053	0.039	0.027
* child >=4	-0.068 **	0.025	0.055 *	0.024	0.001	0.034	-0.031	0.039
* empty nest	-0.065	0.052	0.013	0.043	0.069	0.096	0.082	0.086
partner no job	-0.143	0.159	-0.090	0.101	0.048	0.195	-0.169	0.140
* no child (ref)								
* child <4	0.397	0.240	0.127	0.188	-0.110	0.561	0.482	0.252
* child >=4	-0.331	0.244	0.242	0.254	0.306	0.329	0.056	0.423
* empty nest	-0.289	0.450	0.723 *	0.318	0.972	0.735	1.187 *	0.604
partner's occupational status	0.011 *	0.004	-0.004	0.003	0.011 *	0.005	-0.004	0.004
* no child (ref)								
* child <4	-0.017 **	0.006	-0.003	0.004	-0.018	0.012	-0.005	0.006
* child >=4	-0.015 **	0.005	0.001	0.006	0.002	0.008	0.013	0.009
* empty nest	-0.008	0.012	-0.003	0.011	-0.003	0.024	0.004	0.021

*** p<.01; * p<.05*

[a)] every interaction term has been added separately to the baseline model; interactions with having a partner are based on the sample of months with all respondents, interactions with partner's resources are based on the sample of months in which respondents have a partner

[b)] in the analysis on labour market entry, occupational status refers to last job

Source: Family Survey Dutch Population 1998, 2000, 2003

Table 4.6 Influence of the spouse by individual human capital, children, and year on males' probability of labour market entry or exit and the transition into more or fewer hours [a)]

MALES	entry		exit		more hours		fewer hours	
	b	se	b	se	b	se	b	se
partner's resources * year								
partner's education	-0.028	0.044	-0.020	0.051	-0.025	0.101	0.218	0.116
* year (0-4.7)	0.007	0.012	0.009	0.014	-0.014	0.025	-0.041	0.029
partner no job	-0.123	0.264	-0.263	0.304	-0.967	0.712	0.135	0.705
* year (0-4.7)	-0.004	0.073	0.170 *	0.079	0.235	0.178	-0.050	0.179
partner's occupational status	0.006	0.010	-0.006	0.014	0.028	0.031	0.053	0.034
* year (0-4.7)	-0.002	0.003	0.000	0.004	-0.008	0.008	-0.013	0.008
partner's resources * human capital								
partner's education	0.151 *	0.060	-0.125 *	0.051	-0.073	0.125	-0.005	0.127
* education	-0.012 **	0.005	0.012 **	0.004	0.000	0.009	0.005	0.009
partner's education	0.024	0.053	-0.004	0.049	-0.030	0.103	-0.040	0.100
* occupational status [b)]	-0.001	0.001	0.000	0.001	-0.001	0.002	0.002	0.002
partner no job	0.229	0.362	0.420	0.354	-1.196	0.891	-0.336	0.841
* education	-0.030	0.029	-0.006	0.030	0.080	0.061	0.022	0.061
partner no job	0.272	0.319	0.484	0.306	0.043	0.603	-0.309	0.640
* occupational status [b)]	-0.010	0.007	-0.003	0.007	-0.002	0.011	0.005	0.012
partner's occupational status	0.019	0.016	-0.001	0.017	-0.091 **	0.035	-0.016	0.034
* education	-0.002	0.001	0.000	0.001	0.006 **	0.002	0.001	0.002
partner's occupational status	0.017	0.014	0.011	0.015	-0.021	0.026	-0.019	0.025
* occupational status [b)]	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
partner's resources * child situation								
partner's education	-0.017	0.022	0.026	0.026	-0.043	0.047	0.061	0.052
* no child (ref)								
* child <4	0.066	0.040	0.019	0.041	-0.113	0.072	0.084	0.077
* child >=4	0.070	0.049	-0.061	0.040	-0.019	0.084	-0.022	0.076
* empty nest	-0.166	0.092	-0.038	0.067	-0.072	0.204	-0.433	0.243
partner no job	-0.234 *	0.114	0.363 **	0.136	-0.072	0.254	-0.112	0.321
* no child (ref)								
* child <4	0.275	0.291	-0.075	0.268	0.362	0.513	-0.047	0.488
* child >=4	0.462	0.301	-0.069	0.231	-0.437	0.561	0.107	0.479
* empty nest	0.351	0.708	0.567	0.465	0.590	1.478	1.045	1.268
partner's occupational status	-0.003	0.005	-0.010	0.006	0.012	0.010	0.006	0.011
* no child (ref)								
* child <4	-0.003	0.014	0.010	0.014	-0.060 *	0.024	-0.022	0.021
* child >=4	0.026 *	0.013	0.005	0.011	-0.019	0.022	-0.015	0.019
* empty nest	0.014	0.044	0.035	0.022	0.012	0.080	0.002	0.062

*** p<.01; * p<.05*

[a)] every interaction term has been added separately to the baseline model; interactions with having a partner are based on the sample of months with all respondents, interactions with partner's resources are based on the sample of months in which respondents have a partner

[b)] in the analysis on labour market entry, occupational status refers to last job

Source: Family Survey Dutch Population 1998, 2000, 2003

4.5 Conclusion

In this chapter, we extensively tested the economic hypothesis in the case of the Netherlands. We did this by examining the impact of partner's labour market resources on adjustments in labour market participation of men and women. We estimated the effects of partner's educational level, employment status, and occupational status on transitions into and out of employment, and on changes in the number of weekly working hours. We set out to solve the inconclusiveness of earlier findings, and tested the influence of the partner's resources under several conditions: historical period, level of human capital, and presence and age of children. The general conclusion is that labour market participation is not restricted by partner's resources, even not under specific conditions. It is clear that this result refutes the economic hypothesis. Apparently, men with highly educated wives are as likely to work a day a week less than men with poorly educated wives, and women with high-status husbands are as likely to enter the labour market as women with low-status husbands. We did not solve the inconclusiveness of earlier findings, but our results lead us to believe that, at least as far as the Netherlands are concerned, the division of paid work within households is not dependent on economic factors. Particularly, we want to stress that, although there is a strong variety in the number of working hours of women in the Netherlands, adjustments in these working hours are not affected by the husband's human capital at all.

We think that cultural factors (general norms and individual values or attitudes) are much more important. Firstly, the results in this chapter show that the patterns in the division of labour market participation are in concordance with traditional gender roles: married (or cohabiting) women are more likely to reduce work time and less likely to increase it, whereas the presence of a partner makes men more attached to the labour market. Furthermore, young children clearly hinder female labour market participation, whereas mothers with school-age children are more likely to enter the labour market than childless women, which is all in concordance with the role-specialization hypothesis.

A second indication of gender role behaviour shows from the findings concerning the interaction effects between partner's resources and the presence and age of children. Our conclusion that there is a stronger negative relationship between resources of the partner and labour market participation when children are present, mainly refers to women: whereas the impact of partner's resources is the same for men with or without children, for women with children, labour market participation is more restricted by their husbands' resources than for women without children. The fact that children make a difference in the decision structure of women but not in that of men, can be considered to support the idea of gender role behaviour as well: women's labour market behaviour is more receptive to partner effects than male labour market behaviour, possibly because of the difference between the male labour role and the female labour and caring role.

Finally, the results on religiosity show that women are more likely to leave the labour market and less likely to become employed if the couple (at least one of the two spouses) is

religious. In the Netherlands, religiosity is an important proxy for traditional values with regard to women's labour market participation and the gender specific division of labour, and our findings show that personal values and attitudes influence labour market participation decisions, at least as far as women are concerned.

If we conclude that cultural factors seem more important than economic factors when it comes to couples' division of labour market participation, a paradox arises: the Netherlands are usually characterized as a country with progressive values and attitudes concerning female labour market participation and division of labour, but with relatively traditional behaviour on these issues (Kalmijn & Luijkx, 2006; Treas & Widmer, 2000). Hakim claims that personal preferences are the most important determinants of decisions (Hakim, 2000; Hakim, 2002). We believe that this claim helps us to understand the paradox. In this respect, it is important to note that values and attitudes are general (e.g. all women should be allowed to work, or there is nothing against it when mothers work, or fathers are as capable as mothers to raise children), whereas preferences are individual and refer to the personal context (e.g. in my case I rather stay at home—regardless of my attitudes on working in general). Although values and preferences are correlated, we think that traditional labour market outcomes in the Netherlands might be the result of relatively traditional preferences despite relatively progressive values in general. Dutch women (and men) generally believe that women should be free to be active on the labour market, also if they have children; but women prefer to lower their own labour market participation if they have children, and men do not. We are strengthened in this belief by findings about actual and preferred working time by Dutch men and women which show that a large majority of the Dutch couples are happy with their current (on average low) working hours (Portegijs, Hermans, & Lalta, 2006). We encourage future research to test the strength of these alternative cultural mechanisms versus the economic mechanism; not only in the Netherlands, but in other countries as well, in order to understand its true merits.

We like to emphasize that, in testing and falsifying the economic hypothesis, we have focused on the economic mechanism within households, especially whether resources of one spouse are negatively related to labour market participation of the other spouse. This might be the case either because financial incentives to work are low, or because the household can afford to work less. The relationship between individual human capital and labour market participation is often assumed to rely on economic mechanisms too. However, the direction of this effect is not obvious. On the one hand, people with high levels of human capital have a high earning capacity and therefore have financial incentives to work more hours, but on the other hand, such a high earning capacity makes it financially more easily affordable to work less. In our opinion, it is therefore not clear what findings would corroborate economic mechanisms on the individual level, and thus, the right test is on the household level.

In the introduction we touched on the hypothetical power of the economic mechanism to weaken inequality between households. What are the consequences of our findings for inequality between households? Although we understand that spouses' occupational level is a stronger

determinant for the household's socio-economic position than spouses' labour market participation, the absence of the economic mechanism behind couples' labour market participation suggests that inequality between households largely results from assortative mating and is not suppressed during the relationship. The wives of successful husband are not inclined to work fewer hours than the wives of less successful husbands, and husbands are not going to work more if their wives have low levels of human capital.

Chapter 5

Partner's resources: support or restriction in the occupational career (1940 – 2003)?*

This study investigates the role of the partner in career mobility in the Netherlands from the 1940s to the present. Mobility has been defined as upward and downward moves in occupational status. Firstly, we hypothesize that having a partner restricts the labour market career of women, whereas it supports labour market advancement of men. Secondly, we formulate opposing hypotheses about the effect of partners' resources: social capital notions predict positive partner effects, whereas economic theory predicts negative partner effects. Thirdly, we propose trend hypotheses: the process of individualization makes us predict declines in partner effects, but the processes of cultural and economic modernization lead us to hypothesize a shift from negative to positive partner effects on female career mobility. We use event history analysis techniques covering the complete labour market careers of 5,068 respondents and their partners (Family Survey Dutch Population 1998-2003). We find no evidence for the idea that having a partner has an effect on career mobility of women, and we find a small positive effect on men's mobility. Labour market resources of the partner positively affect upward career moves, whereas non-employment of the partner prevents downward career moves for both men and women. The data provide no evidence for historical developments in the influence of the partner on individual career mobility.

5.1 Introduction

Do people have better career chances if they have a partner, and does it matter what resources the partner has? This chapter investigates the role of the partner in career mobility over the last six

* This chapter is a slightly different version of the following publication: Verbakel, E., & de Graaf, P. M. (2008). Resources of the Partner: Support or Restriction in the Occupational Career? Developments in the Netherlands between 1940 and 2003. *European Sociological Review, 24*(1), 81-95.

decades in the Netherlands. More precisely, we examine to what extent the relationship status (singleness, non-cohabiting relationship, unmarried cohabitation, and marriage) has an impact on individual upward and downward mobility chances, and to what extent these chances are increased or reduced by labour market resources of the partner, which we define as partner's education, occupational status, supervisory authority, working hours, and whether or not the partner is working in the same field. Furthermore, we will investigate whether these dependencies have changed since the 1940s.

Earlier research showed that the occupations of spouses are correlated positively (Hout, 1982; also see Chapter 2). Such a positive association results in higher social inequality between households compared to individuals since it means that either favourable or unfavourable social positions are accumulated in households. For a large part, the positive association between spouses' occupations is due to educational and occupational homogamy, but Chapter 2 has also shown that about half of the association cannot be attributed to educational homogamy. This chapter focuses on another process that may influence the association between partners' labour market success: the effects that partners have on each other's occupational career during the relationship. If, on top of homogamy processes, the resources of one partner positively affect the labour market outcomes of the other partner, resources in 'favourable' households are accumulated to an even larger extent, compared to the resources in 'unfavourable' households. Therefore, positive partner effects might lead to higher inequality between households than can be expected on the basis of homogamy alone. Moreover, if partner effects have become more positive over time, inequality between households might have grown, while a reduction of positive partner effects or a trend towards more negative partner effects might point at declining inequality.

The idea that labour market resources of one partner might affect labour market outcomes of the other partner is not new (Blossfeld & Drobnič, 2001; Bernasco, de Graaf, & Ultee, 1998). The central argument is that partners have to arrange household issues together, and that paid labour is strongly related to the availability of time and money, the two most important needs for running a household. In order to provide the household with the necessary financial resources and time for household tasks and child care, partners have to adjust their paid and unpaid labour activities. The household approach has seemingly been fruitful in cross-sectional designs on labour market participation, but has not often been applied to dynamic research on upward and downward labour market mobility. A major reason for this neglect is, probably, a lack of appropriate data, which should contain detailed career information on both partners.

Hypotheses and empirical results on the influence of the partner on labour market outcomes can be found in two lines of research. The first line of research examines whether marital status has a positive or negative effect on labour market outcomes. These effects are often referred to as marriage premiums or penalties. Generally, it is hypothesized and found that being married leads to higher wages for men (Korenman & Neumark, 1991; Waite, 1995). Higher productivity due to increased feelings of responsibility or employer favouritism are mentioned as

possible reasons for the male marriage premium, next to selection and unobserved heterogeneity. Human capital theory predicts opposite effects of marriage for women. Because married women retreat from the labour market more often than single women, the former are assumed to have less human capital than the latter. Despite the well-founded theoretical arguments, the presumed marriage penalty for women has not often been empirically found (Waldfogel, 1997; Hill, 1979; Waite, 1995; Korenman & Neumark, 1992).

The second line of research does not simply look at the presence of a partner but tries to understand how the partner influences labour market outcomes. It is argued that resources of the partner may act as a restrictive or supportive means for labour market outcomes, such as labour market participation or occupational status. Usually, a highly educated partner helps people in achieving good labour market positions, independently of their own educational level (Benham, 1974; Brynin & Schupp, 2000), and partner's occupational status is sometimes found to be helpful too (Robert & Bukodi, 2002; Bernardi, 1999). These positive revenues can be explained by social capital theory. From economic theory (Becker, 1981), however, one would expect negative partner effects: if one partner has a favourable labour market position, the other has no incentive to work or to work on a high level. Evidence for restrictive effects of partners' economic resources have been reported (Bernardi, 1999). For the Netherlands, Bernasco and colleagues (Bernasco, de Graaf, & Ultee, 1998) found a negative effect of husband's income on wife's occupational attainment, but a positive effect of husband's education.

The hypotheses that are put forward in the two lines of literature on partner effects are not often tested in dynamic studies of career mobility. The existing literature on career mobility, or job mobility in general, predominantly studies individuals and their occupational careers without paying much attention to the partner or the partner's career as possible determinants. Instead, when analysing the probability of changing jobs and the probability of upward versus downward mobility, much attention has been paid to the role of segmented industries or the dual economy (Carroll & Mayer, 1986; Mayer & Carroll, 1987; Beck, Horan, & Tolbert, 1978; Tolbert, Horan, & Beck, 1980), segmentation of the labour market (Blossfeld & Mayer, 1988), and moves within and between firms (Felmlee, 1982; Valcour & Tolbert, 2003). In her overview article on job mobility and career processes, Rosenfeld (1992) notices the neglect of family issues in this line of literature, especially when it comes to male careers.

This study's contribution to the research literature is twofold. The first contribution lies in the inclusion of the role of the partner and his or her resources in dynamic research of labour market transitions, especially on upward and downward mobility. The second contribution of this study is the application of a long term historical perspective. In the post-war era, Western societies experienced a general shift from traditional to modern values about the sex specific division of labour. Our data enable us to examine to what extent the role of the partner in career mobility has changed since the 1940s. We hypothesize that the historical context serves as a condition to predict whether the partners' influence on career mobility is predominantly supportive or restrictive, especially for women.

To summarize, the first question we will answer is to what extent upward and downward job moves of men and women depend on (a) relationship status, and (b) on the labour market resources of the partner. The second question is to what extent the influence of (a) relationship status, and (b) the labour market resources of the partner has changed between 1940 and 2003. For this purpose, we make use of three editions of the Family Survey Dutch Population collected between 1998 and 2003. These data contain over one million months with detailed information on labour market careers of 5,068 individuals, their partners' labour market careers, relational and family careers, and other relevant variables.

5.2 Theory

We present our theoretical expectations in three parts. Firstly, we hypothesize whether the relationship status supports or restricts career opportunities. Secondly, we formulate hypotheses about the impact of partner's resources. Finally, we hypothesize about historical developments in the effects of relationship status and resources of a partner on career mobility. It is important to note that we focus on occupational status as the indicator of labour market success, and not on labour market participation. Although labour market participation and labour market success are closely related, we think that the theoretical mechanisms of effects of the family on participation and success are quite different. Effects on labour market participation have to do with the time budget and gender roles, whereas effects on career success primarily have to do with economic and social resources.

5.2.1 Effects of relationship status for men and women

We predict opposing hypotheses with respect to relationship status for men and women. In concordance with Jessie Bernard's well-known hypothesis that men benefit from marriage, and women do not (Bernard, 1972), we hypothesize that having a partner has a positive effect on men's labour market careers, and a negative effect on women's labour market careers. Theoretically, we will not distinguish between several types of relationships, and we think that the so-called marriage premium or penalty refers to both unmarried cohabiting and non-cohabiting relationships. We will empirically test whether this is the case.

The main argument why marriage has a positive effect for men is expressed in the breadwinner hypothesis (Kalmijn & Luijkx, 2005). Men with families feel a stronger financial responsibility which makes them invest more in their work. This investment makes them more productive, which is rewarded by employers with higher pay or promotions (Korenman & Neumark, 1991). A second argument for hypothesizing a marriage premium for men is based on employers' behaviour towards married and single men. Employers might discriminate against unmarried men or fathers for different reasons (Kalmijn & Luijkx, 2005; Korenman & Neumark, 1991; Hill, 1979). Firstly, they might have a preference for married men or fathers instead of single or childless men because they believe the former will be more productive than the latter.

Secondly, employers might act out of paternalistic beliefs: they believe men with a family deserve better chances.

It is important to note that the marriage premium might be the result of selection processes as well: there might be factors that explain success of men on both the marriage market and the labour market (Korenman & Neumark, 1991; Kalmijn & Luijkx, 2005). After controlling for work characteristics before marriage, Kalmijn and Luijkx (2005) concluded that selection bias does not play an important role, and that it does not explain the positive effect of marriage on male labour market outcomes. The positive effect of marriage on labour market outcomes for men, the marriage premium, has consistently been found for occupational attainment (Korenman & Neumark, 1991; Kalmijn & Luijkx, 2005; Waite, 1995), but not for career mobility (Kalmijn & Luijkx, 2005).

For women, having a partner is supposed to have negative consequences for career advancement. Gender-role specialization (Becker, 1981) makes wives more attached to the home than to the labour market (Sørensen, 1983). Although values with respect to working women have become more modern, it is still the women who are primarily responsible for caring tasks in the home in most families (Van der Lippe & Van Dijk, 2001; Shelton, 1996). As a result, marriage has a negative effect on female labour market careers. The result of this process is that married women have fewer opportunities to increase their human capital, which reduces their odds of career improvement even further. Career breaks are the main explanation for this lower amount of human capital (Waldfogel, 1997; Korenman & Neumark, 1992; Davies & Pierre, 2005). An additional and related factor is that opportunities for training are less likely when employment is discontinuous. Lower investment in training can also be the result of anticipation: women who expect that they will interrupt their career reason that the costs of the investments will not outweigh future benefits (Davies & Pierre, 2005). Fewer possibilities to build human capital are also argued to be related to part-time work, work below one's level, and jobs that are convenient with respect to flexible work hours (Avellar, 2003). All of these job characteristics are more common among married than single women.

Regardless of the strong theoretical expectations, most studies do not find support for a marriage penalty for female labour market success (Waldfogel, 1997; Hill, 1979; Waite, 1995; Korenman & Neumark, 1992). Waldfogel (1997) proposes some explanations for this finding. The marriage bonus for both men and women is consistent with the household production model that states that living in a household is easier than living alone, which makes household members more productive compared to singles. If this is true, it should show up in our models that people with a non-cohabiting relationship have similar mobility probabilities than singles, and that married and unmarried cohabiting people are similar in this respect too. In addition, a selection process could be going on, which implies that successful women are both more likely to get married and more likely to get a good career.

5.2.2 Effects of partner's resources for men and women

Given that one has a partner, does he or she stimulate or restrict one's career outcomes? If partners balance their activities in order to provide the household with enough income and enough time for household and caring tasks, it is very plausible that the partner's labour market resources will affect one's labour market decisions, and thus will affect transitions into higher or lower status jobs. We put forward two opposing mechanisms: partners' labour market resources could positively or negatively affect career outcomes.

The hypothesis that the partner's resources have a positive effect on upward career mobility is based on the general idea that partner's labour market characteristics are resources that can be used in a positive way to reach a better position. This idea is usually known as the notion of social capital (Lin, Vaughn, & Ensel, 1981). Resourceful contacts in one's network can help with reaching higher positions. In general, these contacts can give information on companies or people, or even on how to behave at a job interview. More particularly, contacts can give useful information on job openings or they can put in a good word. The quality of a contact's resources is generally indicated by several labour market characteristics that imply success, like high occupational status, supervisory authority and a high level of education. A more specific way of how a contact—or in our study, the partner—can help, is by working in the same occupational field. A partner working in the same field can have very specific contacts or job information that can be useful if one aims at career improvement in one's field.

Stimulation can be another reason for positive partner effects. People with a favourable labour market position might transfer their positive attitude towards career advancement to their partners, and stimulate their partners to put an effort into their career. The attitudes that cause this stimulating effect are partly connected with attitudes towards the sex specific division of labour and towards working women or mothers. In a modern view, pursuing a career is a good thing for both men and women; it stimulates personal development, boosts self-respect, and it offers a rich social network. Since educational level appears to be strongly related to modern values concerning career pursuit (Alwin, Braun, & Scott, 1992), we expect partner's educational level, being one of the indicators of labour market resources, to lead to more stimulation, and therefore to a positive partner effect on labour market transitions. Both the idea of social capital and stimulation lead us to the hypothesis that partner's labour market resources have a positive effect on transitions into better labour market positions. Positive partner effects, in particular that of the partner's education, are often found in cross-sectional research (Bernasco, de Graaf, & Ultee, 1998; Bernardi, 1999; Brynin & Schupp, 2000).

We do not only expect positive partner effects, but also negative partner effects. Someone with a successful labour market position might restrict the labour market career of the partner. If the labour market position of one's partner is favourable, there are fewer incentives to be successful (Becker, 1981; Bernasco, 1994; Bernasco, de Graaf, & Ultee, 1998; Felmlee, 1982). This economic argument leads to the hypothesis that labour market resources of the partner have a negative effect on the probability of getting a more successful job. Negative partner effects are

found in earlier research, both in attainment studies (Van der Lippe & Siegers, 1994) and in career studies (Bernasco, de Graaf, & Ultee, 1998; Bernardi, 1999; Van der Lippe & Siegers, 1994).

5.2.3 Historical developments in partner effects

We derive a general trend hypothesis for men and women, and a more specific one for women alone, which will also formulate a context in which positive or negative partner effects on female careers are supposed to prevail. Firstly, we expect that general societal changes as secularization and individualization have led to a decline in the importance of the relationship status and partner's resources. The processes of secularization and individualization refer to changes in the way people live their lives; they live more individualistically, are less influenced by religion and social environment, and, in general, make their own decisions. This implies that the influence of the partner should also have declined.

Secondly, we observe that female employment has increased dramatically in the Netherlands. Until the 1970s, women left the labour market when they married, but if they did not leave then, they did when they had children (de Graaf & Vermeulen, 1997). Nowadays, however, the majority of new mothers continue to work (although they often have part-time jobs). This development is the result of cultural and economic modernization processes, and we think that this may have changed the way husbands influence their wives. The cultural modernization refers to the well-known shift from traditional to modern values about the sex specific division of labour and working women or mothers (Treas & Widmer, 2000). In a traditional view, men are supposed to build a career, while women are supposed to take care of the unpaid household and caring tasks. Modern values consider career-orientation to be suitable for both men and women. Traditional gender roles and the economic incentive mechanism both predict negative partner effects on career mobility for women. However, when the normative restriction weakens and is replaced by liberal values that promote female careers, the balance might swing to supportive partner effects. At the same time, economic modernization has made support for the wife's career to become more in a man's interest: the potential contribution of the wife's career to the family's living standard has increased considerably (Oppenheimer, 1977), mainly because of the increased levels of female education (Shavit & Blossfeld, 1993). These changes lead us to predict that negative partner effects on female career mobility as expected by economic theory have decreased, and that the positive partner effects have become more important in present times.

5.3 Data

We use three waves of the Family Survey Dutch Population: 1998, 2000, and 2003 (de Graaf, de Graaf, Kraaykamp, & Ultee, 1998; 2000; 2003). The surveys cover the Dutch population between the ages of 18 and 70 with an overrepresentation of couples. The data are based on structured face-to-face interviews and self-completion questionnaires, which are identical for primary respondents and their cohabiting or marital partners. The net response rate varies from 40.6 to

52.6 percent, which is very reasonable for such a survey design in the Netherlands. In total, 5,764 respondents (primary respondents and their partners) have been interviewed. Our analyses will be based on a sample of 5,086 individuals who are 20 or older and who, at one time or another, had a job. A retrospective design has been used in which respondents are asked to reconstruct their careers in several domains, such as their occupational and demographic careers. Respondents report the start and end date, as well as additional information on the content of the job for each job he or she ever held. This set up makes the data extremely useful for analysing partner effects on career mobility. For ex-partners, information on labour market careers is less extensive, but the existence of prior relationships themselves and, in two out of three surveys, the educational level of ex-spouses are known.

5.3.1 Upward and downward mobility

To be able to estimate event history models (see Models section), we reconstruct the data into a person-month file. People who are employed can make three possible career moves, and this is true for each job spell they have and have had: they can switch to a higher-status job, to a lower-status job, or to a job with the same status level. In this study, we are especially interested in the former two, upward and downward mobility, because these moves directly influence the socio-economic position of the household. We will, therefore, pay no further attention to lateral mobility. Obviously, people who are employed also have the chance of leaving the labour force. However, we consider transitions out of the labour force not as much as a dimension of career mobility, but as a dimension of labour market participation since, in most cases, labour market exit is voluntary.

We speak of upward mobility if a new job scores at least 5 points higher on the International Socioeconomic Index (ISEI) for all occupations (Ganzeboom, de Graaf, & Treiman, 1992) compared to the prior job. A decrease of 5 or more points is considered as downward mobility. In order to test the robustness of our results, we performed a sensitivity analysis in which we defined upward and downward mobility as an increase or decrease of at least 10 points. Overall, the results do not lead to different conclusions; in the results section we will discuss the differences in more detail when relevant. We record 1,897 upward moves for men (1,569 for men with a partner) and 883 upward moves for women (708 for women with a partner). In comparison, downward moves occur less often: 1,229 for men (1,011 for men with a partner) and 651 for women (546 for women with a partner).

5.3.2 Relationship status and partner's resources

Relationship status is a time dependent variable based on the dates the relationships between the respondent and his or her (ex-)partner started, ended, and moved to another stage. We distinguish four relationship categories: singleness, non-cohabiting relationship, unmarried cohabitation, and marriage. Information on partner's resources has been added in all months that the respondent has a relationship. First of all, we consider partner's educational attainment that has been measured in

years of education, varying from 6 years for elementary education to 20 years for a postgraduate degree[1]. The employment status of the partner is indicated by a dummy variable (job=0 and no job=1). If the partner has a job, we record four specific labour market resources that are all time-dependent: (1) occupational status according to the International Socioeconomic Index (ISEI) (Ganzeboom, de Graaf, & Treiman, 1992), (2) whether or not the job implies supervisory authority, (3) number of weekly working hours, (4) whether or not the occupational field is identical to that of the respondent's.

In the months that the respondent is non-employed, the occupational status has been mean-imputed (separately for men and women) and the weekly number of working hours has been set to zero. The dummy variable that indicates whether or not the partner has a job prevents this intervention from affecting the results. In a limited number of cases, partner information is completely absent. For these cases, occupational status (N=1.3 per cent) and education (N=5.6 per cent) are mean-imputed, and dummy variables that indicate whether or not the original information is missing, are added. For supervisory authority and same occupational field, a third category comprises all missing cases. The coefficients of the dummy indicators of missing variables will not be reported in the tables.

5.3.3 Individual resources

In order to estimate partner effect models, it is necessary to control for individual characteristics that may be of importance in making transitions into jobs with higher or lower occupational status. Education has been measured in years of schooling (6-20 years) and is time constant, since people start being at risk after they have finished their education. Furthermore, we consider five occupational characteristics, which are all time dependent. The occupational status has been measured with the International Socioeconomic Index (ISEI). Work experience indicates the total number of years one has worked during one's career. A quadratic term has been included into the models as well. We do not consider age because it correlates strongly with work experience, especially for men. Supervisory authority is a dummy variable differentiating between no supervisory authority at all and some or much supervisory authority. Working hours express the actual number of working hours per week. The maximum number has been top-coded to 60[2]. In order to test the influence of having a partner in the same occupational field, we distinguish six occupational fields on the individual level. This distinction is a further classification of the two-digit occupational code provided by Statistics Netherlands. Occupations can belong to the cultural field (teaching, linguistic, and social occupations), the care-giving field (medical, personal, and social care), the technical field (exact and technical occupations), the economic field (transport,

[1] primary education=6 years, lower vocational education and lower secondary education=10 years, intermediate secondary education and reduced intermediate vocational education=11 years, higher secondary education=12 years, intermediate vocational education=13 years, higher vocational education=15 years, university=17 years, post-academic education=20 years.

[2] In a sensitivity analysis, we top-coded working hours at 40 hours per week. This increased the individual effects of working hours on male upward mobility, but did not alter the general conclusions of this study.

communication, administrative, commercial, juridical, and managerial occupations), the agrarian field, or to another, more general field.

Missing values on individual characteristics are scarce (about 1 per cent of the months have missing values). For cases with missing values on education, occupational status, and working hours, we impute mean scores (separately for men and women). In addition, dummy indicators for missing variables have been added to the models, but the effects will not be reported. An extra category takes care of missing values on the categorical variable supervisory authority.

Table 5.1 Statistics of independent variables for females and males, based on the sample of months in which the age is between 20 and 55 and the respondent is at risk of experiencing upward mobility

	females						males					
	total [a]			with partner [b]			total [a]			with partner [b]		
	N	mean	st dev	N	mean	st dev	N	mean	st dev	N	mean	st dev
historical period												
year 1940-1959	2,487	0.05		2,334	0.04		2,512	0.03		2,367	0.02	
year 1960-1969	2,487	0.09		2,334	0.08		2,512	0.07		2,367	0.06	
year 1970-1979	2,487	0.13		2,334	0.13		2,512	0.14		2,367	0.14	
year 1980-1989	2,487	0.22		2,334	0.21		2,512	0.24		2,367	0.24	
year 1990-2003	2,487	0.52		2,334	0.54		2,512	0.52		2,367	0.55	
duration at risk												
duration < 2 years	2,487	0.27		2,334	0.25		2,512	0.20		2,367	0.16	
duration 2-4 years	2,487	0.21		2,334	0.20		2,512	0.15		2,367	0.14	
duration 5-9 years	2,487	0.35		2,334	0.36		2,512	0.30		2,367	0.30	
duration >= 10 years	2,487	0.14		2,334	0.16		2,512	0.32		2,367	0.36	
missing value duration	2,487	0.03		2,334	0.03		2,512	0.03		2,367	0.03	
children												
no children in household	2,487	0.67		2,334	0.64		2,512	0.51		2,367	0.44	
youngest child < 4	2,487	0.12		2,334	0.13		2,512	0.22		2,367	0.26	
youngest child >= 4	2,487	0.17		2,334	0.19		2,512	0.23		2,367	0.26	
empty nest	2,487	0.04		2,334	0.04		2,512	0.04		2,367	0.04	
missing value children	2,487	0.00		2,334	0.00		2,512	0.00		2,367	0.00	
individual resources												
education in years (6-20) [d]	2,479	11.78	2.97	2,326	11.75	2.96	2,503	12.06	3.22	2,359	12.07	3.20
occupational status (10-85) [d]	2,487	46.69	13.63	2,334	46.78	13.74	2,512	47.67	13.68	2,367	48.12	13.75
work experience (0-36) [d]	2,487	7.52	5.13	2,334	8.12	5.56	2,512	11.71	6.22	2,367	12.99	6.64
work experience square (0-1268) [d]	2,487	103.34	129.85	2,334	113.93	145.21	2,512	221.24	183.21	2,367	252.71	206.69
supervising	2,487	0.15		2,334	0.15		2,512	0.35		2,367	0.38	
not supervising	2,487	0.85		2,334	0.85		2,512	0.65		2,367	0.62	
missing value supervising	2,487	0.00		2,334	0.00		2,512	0.00		2,367	0.00	
working hours (3-60) [d]	2,486	32.62	9.28	2,333	31.98	9.37	2,510	41.21	6.47	2,365	41.21	6.46
occupational field: cultural	2,487	0.13		2,334	0.13		2,512	0.09		2,367	0.09	
occupational field: care-giving	2,487	0.28		2,334	0.28		2,512	0.04		2,367	0.04	
occupational field: technical	2,487	0.07		2,334	0.07		2,512	0.33		2,367	0.33	
occupational field: economic	2,487	0.45		2,334	0.45		2,512	0.46		2,367	0.46	
occupational field: agrarian	2,487	0.01		2,334	0.01		2,512	0.03		2,367	0.03	
occupational field: other	2,487	0.06		2,334	0.06		2,512	0.05		2,367	0.05	

Table 5.1 Continued…

	females						males					
	total [a]			with partner [b]			total [a]			with partner [b]		
	N	mean	st dev	N	mean	st dev	N	mean	st dev	N	mean	st dev
relationship status												
single	2,486	0.15					2,512	0.15				
non-cohabiting relationship	2,486	0.22		2,334	0.28		2,512	0.14		2,367	0.18	
unmarried cohabitation	2,486	0.15		2,334	0.18		2,512	0.12		2,367	0.15	
marriage	2,486	0.47		2,334	0.54		2,512	0.58		2,367	0.67	
partner's resources												
partner's education (6-20) [d]				2,186	12.20	3.17				2,262	11.50	3.00
partner job				2,334	0.79					2,367	0.53	
partner no job				2,334	0.13					2,367	0.39	
missing value partner job				2,334	0.08					2,367	0.08	
partner's occupational status (10-88) [c] [d]				2,003	48.29	14.56				2,014	46.76	13.88
partner supervising [c]				2,016	0.34					2,025	0.15	
partner not supervising [c]				2,016	0.63					2,025	0.82	
missing value partner supervising [c]				2,016	0.03					2,025	0.03	
partner's working hours (3-60) [c] [d]				1,973	41.28	6.71				1,989	31.89	9.56
partner in same field [c]				2,016	0.33					2,025	0.33	
partner not in same field [c]				2,016	0.66					2,025	0.65	
missing value same field [c]				2,016	0.01					2,025	0.02	
N respondents	*2,487*			*2,334*			*2,512*			*2,367*		
N months	*364,943*			*310,437*			*619,468*			*544,646*		
N events	*883*			*708*			*1,897*			*1,569*		

[a] *average of all months*
[b] *average of the months in which man/woman has a partner*
[c] *average of the months in which man/woman has a working partner*
[d] *only from non-missing observations*
Source: Family Survey Dutch Population 1998, 2000, 2003

The possible presence of any children, and their age, are expressed in four categories and vary over the life course: no children, youngest child is under age four, youngest child is four years or older and still living in the household, and children have left the parental home (empty nest). A fifth category comprises missing values. The information has been based on the date of birth of every child, date of leaving the parental home of every child (if unknown, we assume the child left home at the age of 18) and, in exceptional cases, date of death of the child. Children from prior relationships are assumed to leave the home of the father after divorce, whereas children are assumed to stay in the household of widowed fathers and divorced or widowed mothers.

Finally, we model a duration effect by four dummy variables which indicate the number of years one is at risk of experiencing a transition: less than 2 years, 2-4 years, 5-9 years, 10 or more years. Since we are dealing with labour market transitions made between 1940 and 2003, we control for period by means of 5 dummy variables: 1940-1959, 1960-1969, 1970-1979, 1980-1989, and 1990-2003. To test whether the effects of relationship status and resources of the partner have changed over time, we construct linear interaction terms between each partner characteristic and year. For this purpose, year has been recoded to 0 for the first period, and to

1.5, 2.5, 3.5, and 4.7 for the four other periods. Thus, historical changes in the partner effects can be interpreted in decades. Table 5.1 shows descriptive values of the independent variables for males and females with and without a partner for the months in which respondents are at risk of being upwardly mobile. The descriptive values for the months in which respondents are at risk of being downwardly mobile are almost similar and, therefore, not shown.

5.3.4 Models

We perform event history analyses on the person-month file (discrete time models), starting with the month after the respondent left full-time education for the first time. We focus on career mobility, which means that the months in which a respondent is not working are not included in the analysis. In addition, if the respondent has an ISEI score of 86 or higher, he or she cannot be upwardly mobile according to our definition of upward mobility (maximum ISEI score is 90). Similarly, a person cannot be downwardly mobile if his or her ISEI score is below 15 (minimum ISEI score is 10). Therefore, the risk sets are limited to the individuals who have a job and for whom it is possible to be mobile. Since our hypotheses for men and women are partly opposing, we separate the analyses. Only months in which the respondent is between the ages of 20 and 55 are considered, because we want to focus on the central part of the labour market career, not on (early) retirement processes. We lag all time dependent variables one month in order to be sure that they represent the situation before the transition takes place.

Logistic regression models are used to analyse the probability of making an upward move and the probability of making a downward move. Note that after an event the respondents are immediately at risk of a new event (repeated events). The analysis consists of three steps. Firstly, we test the impact of relationship status next to the influence of individual and control variables. Secondly, we select months in which the respondent has a partner (that is, in a non-cohabiting, a cohabitating, or a married relationship) to test the importance of the resources of the partner. Finally, we include linear interaction terms between relationship status and year to the first model, and linear interaction terms between partner's resources and year to the second model, to test whether the role of the partner has changed over time.

5.4 Results

Before we turn to the results of the influence of the partner, we will briefly discuss the results of individual resources on the probability of being upwardly and downwardly mobile. Table 5.2 (on females) and Table 5.3 (on males) show no unexpected results, and the patterns appear to be rather similar for women and men. Educational attainment increases the odds of being upwardly mobile, and decreases the likelihood of downward mobility. Occupational status has a negative effect on upward mobility and a positive effect on downward mobility, which indicates ceiling and floor effects. Work experience and, for men only, holding a job with supervisory authority lower the probability of any transition, irrespective of the direction of the move. Females who work many hours a week are more likely to get a higher status job, whereas working hours do not

affect male careers. We will not discuss the differences between occupational fields in detail since we only include this information in the model in order to be able to test the partner effect of working in the same field.

Not unexpectedly, children in the household restrict women's careers by reducing their odds of being upwardly mobile. Interestingly, children of a school-going age lower the odds for women of making a downward move, but one should keep in mind that these effects refer to the highly selective group of women who are employed while they have a young child (cf. Kalmijn & Luijkx, 2006). Children hardly affect mobility chances of men.

5.4.1 Relationship status and partner's resources

We will now consider whether someone with a partner has better career chances than someone without a partner. Based on existing literature on labour market success (usually wages), we hypothesize that having a partner stimulates the labour market career of men, whereas it restricts the labour market career of women. Our results, as shown in Table 5.2, do not support this hypothesis as far as women are concerned: having a partner does not significantly affect female upward or downward mobility. Note, however, that part of the restrictive effect of family formation is expressed by the effects of children. If the presence of children would be excluded from the model, the negative effect of marriage on female upward mobility becomes stronger and significant (from -0.195 to -0.299). If we focus on women with a partner, we find that marriage has different consequences for women than other forms of relationships. Married women are less likely to make an upward move than non-cohabiting and unmarried cohabiting women, but at the same time, married women are also better protected against downward moves. Perhaps, non-cohabiting and unmarried cohabiting women are more mobile in general. It is clear, however, that when speaking of the presence of a partner, one should distinguish between different kinds of relationships, and that relationship types that involve household formation do not oppose to non-household formation types. This refutes the household production model that assumes that people living in a household are more productive than singles.

Our results provide some evidence for the marriage premium that has been hypothesized for men (Table 5.3). With respect to upward mobility, only cohabiting men have significantly higher chances than single men, although the effects for married and unmarried (non-)cohabiting men do not differ significantly. When it comes to downward mobility, it is the married men who have significantly lower odds than single men, though married men do not differ from unmarried cohabiting men in this respect. There seems to be a dividing line between single men and men who are in a non-cohabiting relationship on the one hand, and unmarried cohabiting and married men on the other hand. This implies that the idea of a marriage premium is not only valid for married men, but for all men who form a household with their partner.

The next step in our analysis answers the question to what extent resources of the partner support or restrict upward and downward career moves, given that one is not single. For both men and women, the results show a positive effect of partner's occupational status on upward mobility

Table 5.2 Logistic regression coefficients on females' probability of upward and downward mobility

FEMALES	upward mobility				downward mobility			
	all respondents		with partner		all respondents		with partner	
	b	se	b	se	b	se	b	se
intercept	-5.293 **	0.385	-5.827 **	0.570	-8.103 **	0.425	-7.576 **	0.592
year 1940-1959	0		0		0		0	
year 1960-1969	0.093	0.237	0.353	0.340	0.471	0.303	0.452	0.375
year 1970-1979	0.109	0.226	0.321	0.327	0.490	0.294	0.417	0.363
year 1980-1989	-0.154	0.222	0.029	0.325	0.589 *	0.287	0.464	0.357
year 1990-2003	0.459 *	0.220	0.567	0.323	1.068 **	0.286	0.961 **	0.356
duration < 2 years	0		0		0		0	
duration 2-4 years	-0.025	0.103	-0.047	0.115	-0.042	0.122	-0.112	0.136
duration 5-9 years	-0.031	0.109	-0.099	0.120	0.045	0.131	-0.026	0.141
duration >= 10 years	-0.294	0.165	-0.338	0.178	-0.129	0.199	-0.260	0.210
children								
no children	0		0		0		0	
youngest child < 4	-0.445 **	0.139	-0.477 **	0.146	-0.220	0.151	-0.154	0.156
youngest child >= 4	-0.278 *	0.129	-0.266	0.137	-0.508 **	0.159	-0.432 **	0.167
empty nest	-0.910 **	0.277	-0.910 **	0.302	-0.619 *	0.276	-0.528	0.290
individual resources								
education	0.164 **	0.015	0.177 **	0.019	-0.051 **	0.018	-0.060 **	0.021
occupational status	-0.067 **	0.004	-0.071 **	0.004	0.035 **	0.004	0.037 **	0.004
work experience	-0.047 *	0.019	-0.043 *	0.021	-0.086 **	0.024	-0.085 **	0.026
work experience square	0.001	0.001	0.001	0.001	0.001 *	0.001	0.002 *	0.001
supervising	-0.124	0.095	-0.167	0.107	-0.097	0.108	-0.096	0.119
working hours	0.016 **	0.004	0.018 **	0.004	0.007	0.005	0.008	0.005
occupational field: cultural	0		0		0		0	
occupational field: care-giving	-0.444 *	0.182	-0.621 **	0.200	-0.193	0.164	-0.237	0.179
occupational field: technical	-0.227	0.222	-0.360	0.250	0.678 **	0.189	0.660 **	0.209
occupational field: economic	0.487 **	0.155	0.425 *	0.170	0.484 **	0.126	0.441 **	0.141
occupational field: agrarian	-0.712 *	0.293	-0.795 *	0.333	0.749	0.524	0.920	0.527
occupational field: other	0.107	0.210	0.163	0.228	0.535 *	0.247	0.445	0.266
relationship status								
single	0		n.a.		0		n.a.	
non-cohabiting relationship	0.034	0.107	0.256 *	0.114	0.190	0.129	0.341 **	0.129
unmarried cohabitation	0.054	0.114	0.264 *	0.110	0.217	0.136	0.388 **	0.124
marriage	-0.195	0.109	0		-0.136	0.131	0	
partner's resources								
partner's education			0.021	0.016			0.000	0.018
partner no job			0.547	0.817			-1.618 **	0.579
partner's occupational status			0.007 *	0.003			-0.005	0.004
partner supervising			0.057	0.093			-0.042	0.108
partner's working hours			-0.009	0.006			-0.006	0.007
partner in same field			-0.023	0.103			-0.177	0.108
N respondents	*2,487*		*2,334*		*2,493*		*2,340*	
N respondent-months	*364,943*		*310,437*		*363,537*		*309,346*	
N events	*883*		*708*		*651*		*546*	

*** p<.01; * p<.05; n.a. not applicable*

Source: Family Survey Dutch Population 1998, 2000, 2003

Table 5.3 Logistic regression coefficients on males' probability of upward and downward mobility

MALES	**upward mobility**				**downward mobility**			
	all respondents		**with partner**		**all respondents**		**with partner**	
	b	se	b	se	b	se	b	se
intercept	-4.663 **	0.286	-5.253 **	0.373	-7.757 **	0.315	-7.857 **	0.426
year 1940-1959	0		0		0		0	
year 1960-1969	0.120	0.139	0.109	0.180	0.251	0.183	0.177	0.231
year 1970-1979	0.169	0.133	0.144	0.174	0.370 *	0.176	0.272	0.223
year 1980-1989	0.128	0.131	0.082	0.173	0.415 *	0.173	0.286	0.222
year 1990-2003	0.368 **	0.129	0.321	0.173	0.716 **	0.172	0.658 **	0.222
duration < 2 years	0		0		0		0	
duration 2-4 years	0.039	0.079	0.107	0.092	0.070	0.100	0.065	0.118
duration 5-9 years	0.049	0.079	0.069	0.090	0.015	0.103	0.000	0.115
duration >= 10 years	-0.035	0.107	-0.037	0.115	-0.043	0.138	-0.131	0.148
children								
no children	0		0		0		0	
youngest child < 4	0.015	0.075	0.006	0.081	0.053	0.092	0.072	0.099
youngest child >= 4	0.210 *	0.092	0.188	0.099	-0.101	0.117	-0.079	0.126
empty nest	-0.126	0.204	-0.233	0.225	0.210	0.205	0.192	0.220
individual characteristics								
education	0.139 **	0.009	0.131 **	0.011	-0.086 **	0.011	-0.091 **	0.013
occupational status	-0.061 **	0.002	-0.060 **	0.003	0.046 **	0.002	0.050 **	0.003
work experience	-0.083 **	0.013	-0.073 **	0.014	-0.079 **	0.017	-0.068 **	0.018
work experience square	0.001 *	0.000	0.001	0.000	0.001	0.000	0.000	0.000
supervising	-0.158 **	0.055	-0.108	0.058	-0.196 **	0.064	-0.189 **	0.069
working hours	0.002	0.003	0.002	0.004	0.003	0.004	0.001	0.004
occupational field: cultural	0		0		0		0	
occupational field: care-giving	-0.159	0.181	-0.028	0.194	-0.181	0.205	-0.320	0.236
occupational field: technical	-0.045	0.147	0.026	0.158	0.580 **	0.129	0.554 **	0.141
occupational field: economic	0.529 **	0.138	0.564 **	0.147	0.743 **	0.118	0.717 **	0.129
occupational field: agrarian	-0.263	0.186	-0.209	0.204	0.250	0.286	0.433	0.309
occupational field: other	0.619 **	0.159	0.732 **	0.172	0.816 **	0.181	0.792 **	0.211
relationship status								
single	0		n.a.		0		n.a.	
non-cohabiting relationship	0.097	0.077	0.022	0.083	0.009	0.095	0.276 **	0.102
unmarried cohabitation	0.209 *	0.091	0.126	0.088	-0.126	0.113	0.094	0.109
marriage	0.101	0.083	0		-0.264 **	0.100	0	
partner's resources								
partner's education			0.014	0.011			-0.021	0.014
partner no job			-0.075	0.437			-1.076 *	0.470
partner's occupational status			0.007 **	0.003			0.000	0.003
partner supervising			-0.066	0.099			0.026	0.115
partner's working hours			0.004	0.003			0.003	0.004
partner in same field			-0.041	0.083			-0.010	0.096
N respondents	*2,512*		*2,367*		*2,530*		*2,385*	
N respondent-months	*619,468*		*544,646*		*623,626*		*548,511*	
N events	*1,897*		*1,569*		*1,229*		*1,011*	

*** p<.01; * p<.05; n.a. not applicable*

Source: Family Survey Dutch Population 1998, 2000, 2003

(b=0.007). A man or woman whose partner has the highest occupational level has a 73 percent higher chance of being upwardly mobile than a man or woman whose partner has the lowest occupational level (exp(78*0.007)). For women, this effect is non-significant when upward mobility is defined as an increase of ten or more ISEI-points. This is probably due to a lack of power. The effects of spouses' education are not significant. Obviously, the effects of partner's occupational status and education are related, and partly pick up the same underlying process. In a model without partner's occupational status, the effect of partner's education becomes stronger, and even reaches the level of significance when female upward mobility is concerned (0.035, $p<.05$ for females, 0.020 for males). If we leave out partner's education, the positive effect of partner's occupational status on upward mobility chances increases slightly (0.009, $p<.01$ for females, 0.008, $p<.01$ for males). We conclude that human capital of the partner has a positive effect on upward mobility.

The results further show a restrictive partner effect on downward mobility: joblessness of the partner prevents from downward mobility (80% lower odds for women; 66% lower odds for men). The interpretation of this finding is that in single-earner households, the working spouse cannot afford to accept a job at a lower level, since he or she is solely responsible for the household income. If we put it the other way round, we can say that a successful partner reduces the incentive to be successful on the labour market. This is in line with the economic idea. We conclude that supportive and restrictive mechanisms are at work on upward and downward mobility, respectively.

5.4.2 Historical developments

Table 5.4 shows to what extent the effects of relationship status and partner's resources have changed over time. Surprisingly, no trends are found at all where partner effects on female occupational mobility are concerned. Despite major societal changes such as individualization, emancipation, cultural and economic modernization in the twentieth century, and the massive entry of women into the labour market, nothing has changed in the way women's career mobility chances are influenced by their relationship status and the resources of their partners. Almost the same conclusion is true for men, although the influence of partner's education on downward mobility has changed significantly. A highly educated partner used to prevent men from downward mobility, but at the turn of the century this supportive effect has disappeared. In other words, men benefit less from a resourceful partner nowadays than they did in the past.

Table 5.4 Trends in partner effects on females' and males' probability of upward and downward mobility

	females				males			
	upward mobility[a)]		downward mobility[a)]		upward mobility[a)]		downward mobility[a)]	
	b	se	b	se	b	se	b	se
Panel A								
single	0		0		0		0	
non-cohabiting relationship	-0.179	0.271	0.085	0.334	0.040	0.182	0.283	0.230
*year (0-4.7)	0.064	0.074	0.031	0.092	0.017	0.052	-0.087	0.066
unmarried cohabitation	0.020	0.523	0.759	0.574	0.268	0.365	1.039 *	0.411
*year (0-4.7)	0.008	0.124	-0.129	0.139	-0.022	0.089	-0.294 **	0.103
marriage	0.064	0.313	-0.005	0.385	0.332	0.178	-0.172	0.234
*year (0-4.7)	-0.065	0.081	-0.034	0.101	-0.069	0.049	-0.030	0.062
Panel B								
partner's education	0.010	0.044	-0.073	0.050	0.010	0.030	-0.096 **	0.036
*year (0-4.7)	0.003	0.011	0.020	0.012	0.001	0.008	0.021 *	0.010
partner no job	0.632	0.898	-1.697 *	0.733	-0.171	0.467	-1.094 *	0.509
*year (0-4.7)	-0.023	0.093	0.023	0.113	0.027	0.046	0.006	0.057
partner's occupational status	0.011	0.011	-0.016	0.012	0.007	0.008	-0.009	0.010
*year (0-4.7)	-0.001	0.003	0.003	0.003	0.000	0.002	0.002	0.002
partner supervising	-0.064	0.361	0.564	0.384	0.086	0.374	0.113	0.432
*year (0-4.7)	0.030	0.086	-0.153	0.093	-0.037	0.092	-0.023	0.105
partner's working hours	-0.006	0.009	-0.006	0.010	0.005	0.005	0.004	0.006
*year (0-4.7)	-0.001	0.002	0.000	0.002	0.000	0.001	0.000	0.001
partner in same field	-0.004	0.337	-0.261	0.362	-0.048	0.239	0.036	0.259
*year (0-4.7)	-0.005	0.081	0.021	0.088	0.002	0.060	-0.012	0.065

*** p<.01; * p<.05*

a) the interaction terms in panel A are additive to the full model on all respondents as shown in Tables 5.2 and 5.3; the interaction terms in panel B have been added separately to the full model on respondents with partner as shown in Tables 5.2 and 5.3

Source: Family Survey Dutch Population 1998, 2000, 2003

5.5 Conclusion

In this chapter we have investigated to what extent relationship status affects the probability of upward and downward mobility, to what extent the labour market resources of the partner (if a partner is present) matter in this respect, and whether the role of the partner has changed over time, investigating the extensive period from 1940 through 2003. We performed event-history analyses on the Family Survey Dutch Population 1998, 2000, and 2003.

The theoretical answer on the first question has been based on ideas about marriage premiums and penalties. Marriage, or having a partner in general, is supposed to be beneficial for labour market success of men, whereas it is believed to restrict labour market success of women. Proof for this idea comes predominantly from cross-sectional research. In a dynamic study on male career mobility by Kalmijn and Luijkx (2005), marriage appears to have no influence. For

females, the evidence on marriage penalties is scarce. We find support for a marriage premium for men (although the effects are not very strong), but have to refute the hypothesis on a marriage penalty for women. In addition, males do not benefit occupationally from marriage only, but also from unmarried cohabitation. Compared to cohabiting or non-cohabiting relationships, marriage can also prevent women from downward mobility. So marriage does not always imply a penalty.

It is not only the importance of having a partner that we are interested in, but also the role partners' resources play. We found a positive influence of the resources of the partner on upward mobility, and a negative influence of partner's non-employment on downward mobility, for men as well as for women. In other words, both support and restriction mechanisms play a role; the former when it comes to upward mobility, the latter when it comes to downward mobility. Surprisingly, these mechanisms have not changed significantly over time. Despite major societal changes that have had a huge impact on the family and work spheres, the role of the partner on career decisions has not changed. The one exception we find is that a highly educated partner used to prevent men from downward mobility, while this is not the case anymore.

We argue that partner effects are one explanation for inequality between households. Obviously, occupational or educational homogamy determines to a considerable extent whether a household consists of two individuals with favourable or two individuals with unfavourable social positions. Given homogamy, inequality would be larger if spouses positively affect each others' careers during their relationship, but it would be flattened if a successful career of one partner leads to a less successful career of the other partner. Since we find proof for both mechanisms, the net effect of partner influences during the relationship on inequality between households might be zero (depending on the relative strength of the two mechanisms, which is difficult to assess).

Besides our increased insight into the origin of inequality between households, we believe we have made a first step in filling a gap in existing literature on career mobility. Although the role of the family seems to be smaller than the role of individual human capital, we have learned that having a resourceful partner stimulates upward mobility both for men and for women. It would be interesting to find out which mechanisms explain this positive effect spouses have on each other's upward moves. We think that social capital arguments and shared ambitions offer the most plausible explanations, but since we have no direct measures of social capital we cannot test this explanation in this chapter. Furthermore, we think it is interesting to extend the scope of research on partner effects by not only focusing on career mobility, but also on other aspects of the labour market career, such as labour market participation.

Chapter 6

Couples' cumulative incomes over the life course: divergence or convergence?

This study examines to what extent income inequality between highly and poorly educated couples enlarges during the life course as a result of income accumulation. Accumulation would occur if individual and partner's educational levels stimulate hourly wages and working hours during the relationship. In order to fully implement the notion of accumulation of income, we use retrospective information on labour market careers of both spouses (Family Survey Dutch Population 1998-2003) to assess couples' total amount of income earned in the first fifteen years of their relationship. For men, our results show that the highly educated have an arrear in total number of working hours due to the time spent at school; but in the long run, this arrear is more than offset by their higher wage rates, which are also positively affected by the educational achievements of their wives. Highly educated women work more hours and have higher wage rates, which are also stimulated by the educational achievements of their husbands. In total, the incomes of highly educated couples rise faster during the first fifteen years of their relationships than the incomes of poorly educated couples. Thus, we conclude that incomes of highly and poorly educated couples diverge over the life course.

6.1 Introduction

In this chapter, we analyse the life course development of accumulated incomes of husbands and wives within couples, and the development of couples' life-time incomes with detailed retrospective data of the occupational careers of both spouses. We imputed monthly incomes of husbands and wives based on their working hours and on their job levels (occupational status). Our goal is to assess whether couples' incomes diverge over the life course as a result of positive human capital effects of both spouses on each others' careers. If the influence of individual and

partner's human capital is positive, the initial income inequality between couples caused by educational homogamy would enlarge with the progress of time.

During the life course, careers can develop in several directions. A typical continuous career advances during the life course, directly by job promotions and indirectly by growing older and gaining work experience, which is rewarded by the employer. However, reduction of working hours, the decision to leave the labour market, and a confrontation with unemployment or demotion, imply a setback of one's career. The direction in which labour market careers develop is not equally distributed. Firstly, it is the people with many resources and with a favourable labour market career history who are most likely to further their careers (Becker, 1964; Blau & Duncan, 1967). Secondly, it is assumed, and also proven, that the labour market position of the partner affects career chances. In chapter 5 for instance, we found that a highly educated spouse increases the likelihood of upward mobility, on top of the positive educational effect of the individual. Thirdly, family formation has a deep impact on working hours (Kaufman & Uhlenberg, 2000). When a couple has no children, both spouses can work full-time, but when there are young children, this often proves to be impossible or undesirable, and the couple typically reduces its working hours.

Consequences of career development over the life course are not only relevant for differences between individual men and women; the consequences are larger for couples, since partners tend to have similar educational levels. Thus, the higher educated have better career chances on their own, and because they are likely to be married to a highly educated spouse, they are able to benefit from the resources of their spouse too. In other words, educational homogamy implies that couples consist of either two partners with favourable careers or two partners with unfavourable careers at the beginning of their relationship. The sum of the two means that the former have much better initial positions than the latter. On top of that, we expect the initial degree of inequality between poorly and highly educated couples to diverge in the course of their lives due to the more favourable career chances of men and women with a high education and with a highly educated partner. Also, the tendency to postpone having a child among highly educated couples may contribute to income divergence, but because we are mainly interested in the impact of spouses' human capital, we will keep constant on the child situation in our empirical study. We will answer the question to what extent income differences between couples become larger or smaller due to accumulation processes during the life course.

The consequences of the divergence of couples' incomes reach further than the increasing differences in life chances between the adults involved; they extend to the younger generation, and maintain the process of social reproduction. Divergence of couples' incomes makes the circumstances under which children grow up more unequal, with major consequences for the chances they will get in their lives. The tendency of highly educated couples to wait with having children enlarges this gap even more. These couples have spent more time on the labour market before they reduce their working hours to care for children and they, presumably, have a higher job level. Children of highly educated couples do, therefore, not only grow up in better initial

circumstances, but in circumstances that have been exposed longer to advantageous accumulation.

To establish the degree of income divergence, we propose a relatively new way of analysing life course data which does justice to the importance of the accumulation of income within couples (also see de Graaf & Kats, 2007). Most labour market research that uses a life course perspective studies the dependence of labour market decisions on situations or events in the life course (also see Chapters 4 and 5). These event-history models increase our knowledge on mechanisms behind labour market success or income positions compared to cross-sectional research, because the temporal order of events is known. However, this kind of research is usually restricted to establishing the determinants of making a single labour market move, and neglects—in an empirical sense—that labour market careers usually consist of many consecutive moves, both with respect to upward and downward mobility, and with more and fewer working hours. It is the accumulation of these moves that expresses someone's actual position, and it is the sum of the accumulation processes of husband and wife that expresses the actual position of the couple. The study of life-time incomes emphasizes the role of accumulation processes, and therefore produces a more accurate measure of couples' socio-economic positions: it refers to the broader and more general picture by not putting too much weight on small or temporal shifts in individual labour market careers. Based on detailed retrospective labour market career information of husbands and wives in the Family Survey Dutch Population (1998-2003), we assess husbands' and wives' incomes in every month during their relationship by multiplying their working hours by their estimated wage rate. Accumulative incomes are then obtained by adding up monthly incomes.

Although we are not aiming at getting a detailed insight into the processes behind the development of couples' incomes, we compose our analyses in several steps in order to better understand what are the major contributors of the income development over the life course. A first decomposition is that we divide the first fifteen years of a couple's relationship in three five-year periods, to assess the importance of individual and partner's education in the different stages of the relationship. After that, we consider the cumulative outcomes of the first fifteen years. A second decomposition is that we study husbands' and wives' wage rates and working hours separately, before turning to their accumulated incomes, so we understand the relative importance of the time spent on the labour market and the level on which one is employed. Finally, we come to couples' accumulated incomes, and we can find out the total contribution of husbands' and wives' educational level, and the extent to which divergence between couples' incomes takes place. A schematic overview of this setup is displayed in Figure 6.1.

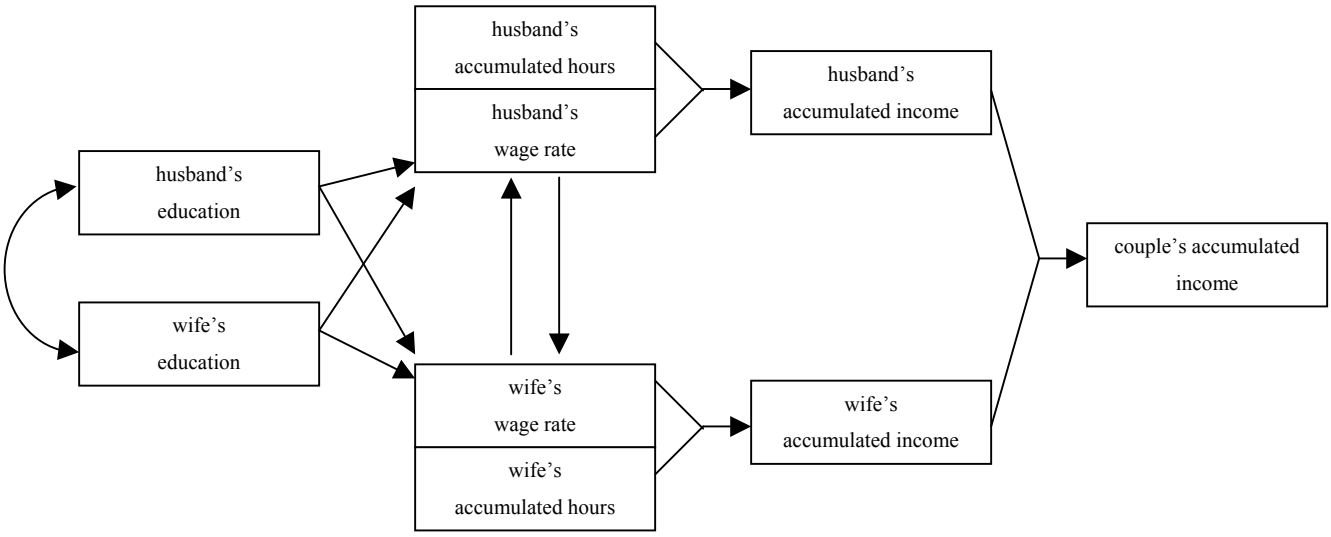


Figure 6.1 Schematic overview of relations of interest in the analysis on accumulated income of the couple

6.2 Arguments for accumulation

There are several reasons to believe that the income of couples will diverge over the life course, or in other words, that resources will accumulate within households in the course of the couples' relationship. In this study, we consider income to be the product of hourly wage (or more generally, occupational success) and working hours. Both individual attributes and partner's attributes are believed to influence occupational success and working hours. As a result, we distinguish four factors that may contribute to such a development.

First of all, human capital helps people to improve their labour market position. Blau and Duncan (1967) already found that education and the occupational status of the first job determine the occupational status of the current job. Furthermore, dynamic research has shown that highly educated men and women experience more upward mobility than poorly educated men and women (Blossfeld, 1986; Kalmijn & Luijkx, 2006; Rosenfeld, 1992). This can be understood from both employers' and employees' points of view. On the one hand, employers are more inclined to reward highly educated employees because of their assumed higher productivity rate. On the other hand, employees who have high earning capacities have much economic reason to realize them. Also, people who have invested in their educational career, and therefore missed income they could otherwise have earned in that time, want to reap the benefits of their investments (Becker, 1964). To sum up, the rise in income over the life course is higher for people with high levels of human capital than for people with low levels of human capital.

Secondly, partner's human capital appears to increase upward mobility chances on top of individual human capital (Bernardi, 1999; Brynin & Francesconi, 2004; Verbakel & de Graaf, 2008). The explanation can be found in social capital theory, which argues that resources of the partner can be used to the benefit of one's own labour market career (Lin, Vaughn, & Ensel,

1981). Spouses share information on job openings, but also transfer their occupational and cultural skills that can be of help in reaching higher level jobs.

Thirdly, it is well documented that highly educated women are less likely to leave the labour market. They work more hours per week than poorly educated women as well (Kalmijn & Luijkx, 2006; Van der Lippe & Van Dijk, 2001), also after children are born (Sørensen, 1983). In addition to the human capital reasons mentioned above, modern values regarding working women and mothers are an important explanation for the difference in labour market participation between highly and poorly educated women. Working hours of men vary to a far lesser extent, and are therefore less susceptible to human capital influences, although highly educated men are more likely to work part-time than poorly educated men in the Netherlands.

A fourth possible determinant is a positive partner effect on working hours. It is plausible that labour market participation decisions of women are not based on the values of the wife alone—next to non-normative factors. Spouses make decisions on working hours together, and the husband's values may be as important as those of the wife's. If we again assume that the highly educated adhere more strongly to modern values about working women and mothers than the poorly educated (Alwin, Braun, & Scott, 1992), we can expect a positive effect of husband's educational level on the working hours of his wife. Chapter 4 on partner effects on working hours adjustments, does not support this hypothesis. The hypothesis that highly educated wives lower working hours of their husbands, because in their modern view fathers should exchange part of their working time for caring time (note: this would be a negative partner effect that dampens the income accumulation within couples), is not supported in Chapter 4 either.

The general conclusion that can be drawn from these arguments regarding job level and working hours, is that the couples who have the best starting position at the moment their relationship starts, experience stronger income developments as time progresses than couples who start at a lower income level. Consequently, the differences between highly and poorly educated couples enlarge over the life course.

Note that there is also a strong theoretical argument that opposes the development towards couples' income divergence. The new home economics (Becker, 1981) argues that household outcomes are maximized if spouses divide paid and unpaid work in such a way that the spouse with the highest productivity rate specializes in paid work and the other spouse specializes in household and caring tasks. Formulated in a more general hypothesis (Bernardi, 1999; Bernasco, de Graaf, & Ultee, 1998), it is expected that a spouse with much human capital or a high income reduces incentives for the other spouse to work long hours or to put an effort into his or her career. Some studies found evidence for this financial mechanism (Bernardi, 1999; Bernasco, de Graaf, & Ultee, 1998; Davies, Elias, & Penn, 1994; Sørensen, 1983). Such a restrictive partner effect implies that the good income position of the one is not complemented by a good income position of the other. This tendency would counteract the accumulation of income within households, which makes divergence of couples' incomes less extreme, or even turns it into convergence.

6.3 Data

We analyse data from the Family Survey Dutch Population 1998, 2000, and 2003 (de Graaf, de Graaf, Kraaykamp, & Ultee, 1998; 2000; 2003). The three highly comparable surveys cover the Dutch population between the age of 18 and 70, with an overrepresentation of couples. The data are based on structured face-to-face interviews and self-completion questionnaires, which are identical for primary respondents and their cohabiting or marital partners. The net response rate varies from 40.6 to 52.6 per cent. In total, 3,235 respondents, of whom 2,582 have a partner, have been interviewed. We selected opposite-sex couples that were cohabiting or married at the moment of interview, and whose partners both were between 18 and 45 when they started their relationship, and who both participated in the data collection (N=2,396). The data contain information on complete relational and labour market careers of the respondent and his or her partner until the moment of interview; a retrospective design has been used in which respondents were asked to reconstruct, with exact dates, their careers in several domains.

The retrospective setup of the data enables us to make a couple-month file that starts in the month the relationship between the respondent and his or her current partner started. We define a relationship as unmarried cohabitation or marriage, which means we do not consider the phase in which the couple was non-cohabiting. We are interested in cumulative incomes of husband, wife, and the couple as a whole at several points in their relationship: the first five years, the second five years, the third five years, and the first fifteen years after the start of the relationship. Not all couples observed are together for such a long time. From the 2,396 couples in our data set, 2,102 couples are together for at least five years, 1,766 for at least ten years, and 1,437 for at least fifteen years. We only selected couples who can be followed for at least the first fifteen years of their relationship, to rule out that presumed life course developments are actually due to compositional differences between groups of couples that are together for only five, ten, or the full fifteen years.

Respondents are not asked to recollect the income level of every job they had, since this information is not believed to be very accurate for jobs long ago. Therefore, we construct an income measure that is based on the number of working hours and estimated hourly wage. Transfers such as unemployment benefits are not considered, which means that our income measure purely reflects labour income. Number of working hours is available for every job the respondent has had during his or her occupational career; also, changes in working hours within the same job are recorded. We top-code the weekly number of working hours at 40. The sum of all hours the respondent has worked in the three five-year periods and in the first fifteen years of the relationship, gives the cumulative number of working hours. People who have a full-time job for five years have worked 10,573 hours in this five-year period. On average, husbands have worked 9,036 hours and wives 4,352 hours in the first five years. On the couple level, the average number of working hours (which is the sum of husband's and wife's cumulative working hours) in five years is 13,388. If we use cumulative working hours as independent variable, we apply mean-centring.

Hourly wages are not directly available in the data because of reliability issues, so we use husband's and wife's occupational status, measured with the International Socioeconomic Index (Ganzeboom, de Graaf, & Treiman, 1992), together with age and age-square, to estimate hourly wages. For this purpose, we rely on data from the Loonwijzer (Tijdens, 2005), which provides information on job titles and hourly wages of almost 80,000 Dutch men and women interviewed between 2000 and 2004. We estimate a regression model for men and women, in which the net hourly wage in Euros is the dependent variable and ISEI, age, and age-square are the independent variables. The estimated regression equations[1] are used to compute male and female net hourly wages in the Family Survey Dutch Population (cf. de Graaf & Kats, 2007). Figure 6.2 shows the estimated hourly wages by age of men and women with high-status (ISEI=90) and low-status (ISEI=10) jobs. The net hourly wage ranges from 5.40 to 14.85 Euros for men and from 3.88 to 11.07 Euros for women. Note that the range of these estimated hourly wages is more limited than in reality: about 10 per cent of the men and about a quarter of the women in the Loonwijzer have real wages out of the estimated ranges. This implies that our estimated income differences between couples could be slightly conservative. In the analysis with hourly wage as the dependent variable, we take the maximum hourly wage observed in the particular time period. Mean-centring is applied when hourly wage is introduced as an independent variable. Husbands or wives who have been non-employed for the whole period get a zero score on hourly wage, while a dummy variable that indicates continuous non-employment is included in the models (coefficient of dummy variable not shown in tables).

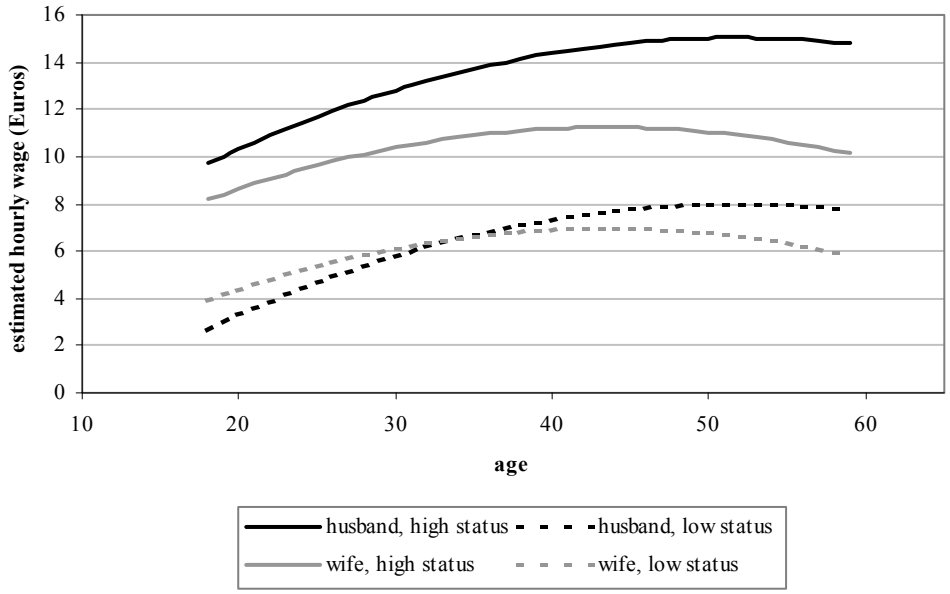


Figure 6.2 Estimated hourly wages for high-status and low-status husbands and wives by age

[1] For men: hourly wage = -5.375722 + .088261*ISEI + .480644*age - .004634*age2
For women: hourly wage = -2.480318 + .053789*ISEI + .407610*age - .004680*age2

For every month, we construct husbands' and wives' net income by multiplying their weekly number of working hours by their hourly wage, and then by multiplying the result by 52 weeks/12 months. A couple's income is the sum of the husband's and the wife's income. Addition of monthly incomes in the three five-year periods and in the first fifteen years of the relationship results in cumulative incomes in the four time periods; we do this calculation for husbands, wives, and couples. Note that we apply the hourly wage imputation based on the 2000-2004 Loonwijzer data to all jobs held between 1947 and 2003. This has the advantage that inflation does not play a role, and thus, that we can compare couples who started their relationship in different historical periods. We thereby assume that the order of jobs according to their hourly wages is rather stable over time, corresponding to the underlying assumption of the ISEI measure, which is widely used. In the first five years of the relationship, husbands' earnings vary from 0 (for those who have not worked at all) to 142,669 Euros. On average, husbands earn 76,323 Euros in this period. In the later five-year periods, average accumulated income mounts to 88,210 Euros and 95,280 Euros respectively. Female earnings are lower: 31,885 Euros on average in the first five years. In contrast to men, their income levels are lower in the next five-year periods: 20,526 and 20,199 Euros. In fifteen years time, husbands have earned 259,814 Euros on average, whereas wives contribute 72,610 Euros to the household income on average. A couple's average income in the first fifteen years of their relationship is 332,425 Euros, but the variation is large (standard deviation is 123,771).

Income information can be lacking because of missing information on working hours or on hourly wage (i.e. on occupational status), in at least one month during the first fifteen years of the relationship. This is the case for 7 per cent of the husbands, 10 per cent of the wives, and 15 per cent of the couples. We apply listwise deletion methods, and do not use any form of imputation because the impact of such an approach could be rather large considering the cumulative nature of our measure. The net number of couples in our analysis is 1,224.

Husbands' and wives' educational attainment is measured in years of schooling, in which zero years stands for elementary education and 14 years for a postgraduate degree[2]. On average, husbands have had 5.74 years of schooling and wives 4.84 years. Four husbands and five wives have missing information on education. They are assigned a score zero, and a dummy variable which is coded 1 if the information was lacking, is included in the models (coefficient of dummy variable not shown in tables).

We include the year in which the relationship started, husband's and wife's age at the start of the relationship, and the presence and age of children as control variables. The year in which the relationship started varies from 1947 to 1989 and has been transformed in a way that score 0 reflects the year 1950, and is divided by ten so the effects can be interpreted in decades. Age at

[2] primary education=0 years, lower vocational education and lower secondary education=4 years, intermediate secondary education and reduced intermediate vocational education=5 years, higher secondary education=6 years, intermediate vocational education=7 years, higher vocational education=9 years, university=11 years, post-academic education=14 years.

the start of the relationship ranges from 18 through 44 (mean husbands=25.43; mean wives=23.02). This upper bound selection assures us that we generally observe couples during their working lives, instead of their after-work lives (maximum age in observation window is 59). In our models, we centre age at 25, which means that the intercept refers to husbands and wives who started their relationship at age 25. The child situation is measured in two variables that express the number of years that the couple (1) has at least one child under age four, and (2) has children who are all four years or older. Couples have children under the age of 4 for 2.06 years on average in the first five years of their relationship, 3.04 years in the second five-year period, and 1.44 years in the third five-year period. For children at a school-going age, the averages are 0.09, 1.06, and 3.10 years respectively. Table 6.1 shows descriptive information of the variables (non-centred and centred) used in the analyses.

Table 6.1 Descriptive information on non-centred and centred variables

		non-centred variables				centred variables			
	N	minimum	maximum	mean	st dev	minimum	maximum	mean	st dev
year start relationship	1,224	1947	1989	1972.38	8.79	-0.3	3.9	2.24	0.88
age at start relationship									
husband	1,224	18	44	25.43	3.99	-7	19	0.43	3.99
wife	1,224	18	44	23.02	3.50	-7	19	-1.98	3.50
children									
years with child <4									
0-5 years of the relationship	1,224	0	5	2.06	1.71				
5-10 years of the relationship	1,224	0	5	3.04	1.75				
10-15 years of the relationship	1,224	0	5	1.44	1.75				
first 15 years of the relationship	1,224	0	14.42	6.54	2.87				
years with child >=4									
0-5 years of the relationship	1,224	0	5	0.09	0.51				
5-10 years of the relationship	1,224	0	5	1.06	1.40				
10-15 years of the relationship	1,224	0	5	3.10	1.99				
first 15 years of the relationship	1,224	0	15	4.23	3.02				
education in years [a)]									
husband	1,220	0	14	5.74	3.31				
wife	1,219	0	14	4.84	3.03				
maximum hourly wage [b)]									
husband									
0-5 years of the relationship	1,118	5.40	13.96	9.15	1.60	-3.75	4.82	0	1.60
5-10 years of the relationship	1,126	5.86	14.85	10.14	1.50	-4.28	4.71	0	1.50
10-15 years of the relationship	1,119	6.85	14.83	10.88	1.43	-4.03	3.95	0	1.43
first 15 years of the relationship	1,138	6.30	14.85	10.88	1.45	-4.58	3.97	0	1.45
wife									
0-5 years of the relationship	945	3.88	10.18	7.45	1.08	-3.57	2.74	0	1.08
5-10 years of the relationship	548	5.49	10.61	8.37	0.94	-2.87	2.24	0	0.94
10-15 years of the relationship	563	6.51	11.07	8.77	0.88	-2.26	2.30	0	0.88
first 15 years of the relationship	992	3.88	11.07	8.10	1.27	-4.22	2.97	0	1.27

Table 6.1 Continued…

		non-centred variables				centred variables			
	N	minimum	maximum	mean	st dev	minimum	maximum	mean	st dev
cumulated working hours									
husband									
0-5 years of the relationship	1,224	0	10,573	9,036	3,273	-9,036	1,538	0	3,273
5-10 years of the relationship	1,224	0	10,400	9,178	2,985	-9,178	1,222	0	2,985
10-15 years of the relationship	1,224	0	10,400	9,075	3,063	-9,075	1,325	0	3,063
first 15 years of the relationship	1,224	0	31,373	27,288	8,712	-27,288	4,085	0	8,712
wife									
0-5 years of the relationship	1,224	0	10,573	4,352	4,116	-4,352	6,221	0	4,116
5-10 years of the relationship	1,224	0	10,400	2,496	3,611	-2,496	7,904	0	3,611
10-15 years of the relationship	1,224	0	10,400	2,324	3,298	-2,324	8,076	0	3,298
first 15 years of the relationship	1,224	0	31,373	9,173	9,648	-9,173	22,201	0	9,648
couple									
0-5 years of the relationship	1,224	0	21,147	13,388	5,184	-13,388	7,759	0	5,184
5-10 years of the relationship	1,224	0	20,800	11,674	4,675	-11,674	9,126	0	4,675
10-15 years of the relationship	1,224	0	20,800	11,399	4,438	-11,399	9,401	0	4,438
first 15 years of the relationship	1,224	0	62,747	36,461	12,885	-36,461	26,285	0	12,885
cumulated income									
husband									
0-5 years of the relationship	1,224	0	142,669	76,323	31,189				
5-10 years of the relationship	1,224	0	147,412	88,210	31,806				
10-15 years of the relationship	1,224	0	153,155	95,280	34,832				
first 15 years of the relationship	1,224	0	442,085	259,814	91,715				
wife									
0-5 years of the relationship	1,224	0	106,711	31,885	31,016				
5-10 years of the relationship	1,224	0	104,140	20,526	30,218				
10-15 years of the relationship	1,224	0	105,352	20,199	29,121				
first 15 years of the relationship	1,224	0	309,281	72,610	79,773				
couple									
0-5 years of the relationship	1,224	0	247,634	108,209	44,304				
5-10 years of the relationship	1,224	0	238,996	108,736	44,890				
10-15 years of the relationship	1,224	0	247,585	115,479	45,812				
first 15 years of the relationship	1,224	0	715,743	332,425	123,771				

[a] *respondents with missing values have been assigned score 0 on the centred variable, and a dummy variable has been added to the model*
[b] *respondents with missing values (as a consequence of non-employment) have been assigned score 0 on the centred variable, and a dummy variable has been added to the model*
Source: Family Survey Dutch Population 1998, 2000, 2003

6.4 Results

In order to better understand the relationship between husband's and wife's education on the one hand, and the couple's income on the other hand, we will first have a closer look at the ingredients of a couple's income: husband's and wife's hourly wage, and husband's and wife's working hours. We will look at three five-year periods of the relationship and at the cumulative outcome after fifteen years.

Table 6.2 Maximum hourly wage of husbands and wives: effects of individual and partner's human capital (OLS regression, unstandardized regression coefficients)

	HUSBANDS						WIVES					
	Model 1			Model 2			Model 1			Model 2		
	b		se	b		se	b		se	b		se
	maximum hourly wage 0-5 years						**maximum hourly wage 0-5 years**					
intercept	8.276	**	0.137	7.116	**	0.326	7.409	**	0.094	6.742	**	0.164
year start relationship	-0.191	**	0.042	-0.184	**	0.043	-0.017		0.028	-0.066	*	0.027
age at start relationship	0.190	**	0.008	0.180	**	0.009	0.120	**	0.006	0.112	**	0.006
years child < 4	-0.035		0.022	-0.021		0.025	-0.122	**	0.014	-0.020		0.015
years child >= 4	-0.010		0.065	-0.008		0.065	-0.132	**	0.043	-0.112	**	0.040
education	0.174	**	0.011	0.167	**	0.011	0.090	**	0.008	0.087	**	0.008
partner's education	0.069	**	0.013	0.053	**	0.013	0.019	*	0.007	0.008		0.007
partner's maximum hourly wage				0.168	**	0.043				0.058	**	0.016
cumulative working hours (x1000)				-0.015		0.019				0.098	**	0.007
partner's cumulative working hours (x1000)				-0.004		0.012				-0.009		0.012
R^2	0.47			0.47			0.40			0.49		
	maximum hourly wage 5-10 years						**maximum hourly wage 5-10 years**					
intercept	9.033	**	0.147	7.661	**	0.485	8.310	**	0.078	7.666	**	0.148
year start relationship	-0.143	**	0.040	-0.132	**	0.041	-0.065	**	0.021	-0.063	**	0.020
age at start relationship	0.138	**	0.008	0.134	**	0.008	0.045	**	0.005	0.040	**	0.005
years child < 4	0.028		0.021	0.040		0.023	-0.038	**	0.011	-0.005		0.011
years child >= 4	-0.023		0.027	-0.013		0.028	-0.038	**	0.014	-0.003		0.014
education	0.176	**	0.011	0.172	**	0.011	0.050	**	0.006	0.050	**	0.006
partner's education	0.068	**	0.013	0.060	**	0.013	0.025	**	0.006	0.021	**	0.006
partner's maximum hourly wage				0.159	**	0.058				0.033	*	0.013
cumulative working hours (x1000)				0.019		0.026				0.070	**	0.007
partner's cumulative working hours (x1000)				0.011		0.015				-0.009		0.013
R^2	0.39			0.40			0.19			0.26		
	maximum hourly wage 10-15 years						**maximum hourly wage 10-15 years**					
intercept	9.862	**	0.155	8.366	**	0.527	8.608	**	0.080	7.989	**	0.158
year start relationship	-0.127	**	0.039	-0.124	**	0.040	-0.047	*	0.020	-0.039	*	0.019
age at start relationship	0.093	**	0.008	0.090	**	0.008	0.021	**	0.005	0.017	**	0.005
years child < 4	-0.005		0.028	0.009		0.028	-0.033	*	0.014	-0.017		0.014
years child >= 4	-0.017		0.024	-0.003		0.025	-0.037	**	0.012	-0.018		0.012
education	0.181	**	0.011	0.176	**	0.011	0.055	**	0.006	0.052	**	0.006
partner's education	0.064	**	0.013	0.053	**	0.013	0.029	**	0.005	0.022	**	0.006
partner's maximum hourly wage				0.166	**	0.060				0.037	**	0.013
cumulative working hours (x1000)				0.072	**	0.025				0.056	**	0.007
partner's cumulative working hours (x1000)				0.016		0.016				0.012		0.012
R^2	0.35			0.36			0.17			0.22		
	maximum hourly wage first 15 years						**maximum hourly wage first 15 years**					
intercept	9.823	**	0.159	8.510	**	0.317	7.793	**	0.139	6.609	**	0.238
year start relationship	-0.117	**	0.040	-0.116	**	0.041	0.069	*	0.035	-0.032		0.030
age at start relationship	0.100	**	0.008	0.093	**	0.008	0.070	**	0.008	0.062	**	0.007
years child < 4	-0.002		0.012	0.005		0.012	-0.058	**	0.010	-0.005		0.009
years child >= 4	-0.016		0.011	-0.015		0.012	-0.037	**	0.010	0.020	*	0.009
education	0.194	**	0.011	0.193	**	0.011	0.132	**	0.011	0.113	**	0.009
partner's education	0.057	**	0.013	0.037	**	0.013	0.026	**	0.009	0.011		0.009
partner's maximum hourly wage				0.163	**	0.038				0.080	**	0.021
cumulative working hours (x1000)				0.027	**	0.007				0.066	**	0.003
partner's cumulative working hours (x1000)				-0.003		0.005				-0.006		0.005
R^2	0.37			0.38			0.30			0.49		

*** p<.01; * p<.05*

Source: Family Survey Dutch Population 1998, 2000, 2003; N=1,224

6.4.1 Maximum wage rate

The first issue we discuss is who earns most per hour. Or in other words, who might have a high income if he or she is willing to work many hours? Table 6.2 shows the relationship between education and hourly wage for husbands and wives. The highly educated have a significantly higher wage rate than the poorly educated. Every year of extra education yields 17 cents more hourly wage for husbands, and 9 cents more for wives, in the first five years of their relationship. Human capital of the partner has an additional positive effect, which results in accumulation of favourable positions within the household, given educational homogamy: in a homogamous, highly educated couple, the wage rate of the husband is stimulated positively by both their educational levels, whereas a poorly educated couple lacks both stimulating forces. The effect of the wife's education on her husband's hourly wage is almost half as strong as the effect of the husband's education, and is partly explained by her wage rate (Model 2). The overall patterns are about the same for wives' hourly wages, although the effects, individual as well as partner effects, are much smaller. During the life course, the impact of education on husbands' wages rises slightly, whereas for women, the link between education and wage rate becomes weaker. If we consider the first fifteen years of the relationship, we can conclude that the educational level of both spouses stimulates the wage rates of husbands and wives, pointing out that the higher educated earn more per hour than the poorly educated because of individual human capital benefits and positive partner effects. On top of that, we observe a positive relationship between hourly wage and number of working hours for husbands and wives. Apparently, men and women who earn higher wages per hour make the most of it by working many hours, resulting in extra high earnings.

6.4.2 Cumulative working hours

The second component of income is working hours. Table 6.3 provides answers to the following question: who has worked the most hours? If we consider the first fifteen years of the relationship, we find that highly educated men have worked fewer hours than poorly educated men (Model 1, b=-275). The models for the separate five-year periods make clear that the negative effect is mainly present in the first five years of the relationship (b=-185), is lower in the next five years (b=-74), and has become non-significant after ten years. This can be understood from the larger proportion of time that the higher educated have spent in school in the beginning of their relationship, compared to the poorly educated who were able to be active on the labour market instead. On average, men with a university degree have spent the first 13 months of their relationship at school, and men with a PhD degree even 24 months, but men with lower educational degrees started their working career at about the same time as their relationship (on average, they spent 0.4 to 3.8 months of the first five years in school). Despite the declining impact of this educational effect over the life course, the arrear of the highly educated is not made up in the first fifteen years, as working hours hardly vary among men in the rest of their lives. In

Table 6.3 Cumulative working hours of husbands and wives: effects of individual and partner's human capital (OLS regression, unstandardized regression coefficients)

	HUSBANDS						WIVES					
	Model 1			Model 2			Model 1			Model 2		
	b		se	b		se	b		se	b		se
	cumulative working hours 0-5 years						**cumulative working hours 0-5 years**					
intercept	10,537	**	387	10,709	**	215	4,740	**	411	6,187	**	335
year start relationship	-85		119	-106		65	852	**	124	617	**	98
age at start relationship	27		23	50	**	15	-24		28	-159	**	26
years child < 4	97		61	40		37	-1,168	**	63	-849	**	51
years child >= 4	-518	**	183	-114		97	-552	**	192	-32		150
education	-185	**	31	-94	**	18	30		38	-130	**	31
partner's education	-87	*	36	-36		20	-7		32	-7		27
maximum hourly wage				-34		43				1,367	**	100
partner's maximum hourly wage				-39		64				-65		59
partner's cumulative working hours				0		0				0		0
R^2	0.07			0.75			0.36			0.62		
	cumulative working hours 5-10 years						**cumulative working hours 5-10 years**					
intercept	9,671	**	388	10,135	**	196	4,304	**	407	7,538	**	298
year start relationship	-49		105	-54		46	633	**	109	111		77
age at start relationship	-54	*	21	-6		10	5		26	-25		19
years child < 4	73		55	46		25	-893	**	57	-453	**	41
years child >= 4	15		71	50		32	-899	**	74	-445	**	52
education	-74	*	29	-35	**	14	120	**	35	-83	**	25
partner's education	-36		34	-13		15	-24		30	-52	*	22
maximum hourly wage				24		32				1,045	**	107
partner's maximum hourly wage				-36		65				42		51
partner's cumulative working hours				0		0				0		0
R^2	0.02			0.83			0.28			0.67		
	cumulative working hours 10-15 years						**cumulative working hours 10-15 years**					
intercept	9,411	**	425	10,276	**	207	2,467	**	427	6,690	**	305
year start relationship	-71		108	-60		47	613	**	109	10		74
age at start relationship	-63	**	23	-5		10	-32		27	9		18
years child < 4	53		76	14		33	-525	**	79	-266	**	52
years child >= 4	15		67	15		29	-509	**	68	-301	**	45
education	-10		30	-22		14	188	**	35	-41		24
partner's education	-45		35	-27		15	-27		30	-20		22
maximum hourly wage				96	**	33				822	**	108
partner's maximum hourly wage				68		69				52		51
partner's cumulative working hours				0		0				0		0
R^2	0.01			0.83			0.12			0.62		
	cumulative working hours first 15 years						**cumulative working hours first 15 years**					
intercept	29,348	**	1,226	30,937	**	657	11,877	**	1,170	16,279	**	953
year start relationship	-227		310	-232		161	2,285	**	295	1,377	**	235
age at start relationship	-93		63	8		34	-77		70	-239	**	58
years child < 4	143		90	56		47	-894	**	86	-560	**	68
years child >= 4	-14		87	61		46	-857	**	83	-702	**	66
education	-275	**	84	-232	**	48	362	**	93	-318	**	78
partner's education	-167		98	-87		53	-48		81	-109		70
maximum hourly wage				417	**	112				4,006	**	193
partner's maximum hourly wage				-124		149				-72		162
partner's cumulative working hours				0		0				0		0
R^2	0.03			0.76			0.28			0.56		

*** p<.01; * p<.05*

Source: Family Survey Dutch Population 1998, 2000, 2003; N=1,224

fifteen years time, the highest educated husbands have worked 3850 hours less (14*-275) than husbands with primary education only. Only in the first five years of the relationship does the partner's educational level have an additional negative effect. If we consider a larger time span, the partner's education does not play a role in the husband's number of working hours[3].

The negative impact of the time that highly educated women have spent in school is not visible at first sight: for the first five years of the relationship, Model 1 shows a non-significant effect of wives' education. If we consider Model 2, we understand that highly educated women have indeed spent more time in school than poorly educated women, which reduces their number of working hours (b=-130), but that they also have higher hourly wages, which stimulates them to work more (b=1,367). However, the net effect of education does not deviate significantly from zero in the first five years. Over the life course, the balance between the two mechanisms becomes more and more in favour of the positive wage rate effect, resulting in a positive net effect of wives' education in the later five-year periods and in the first fifteen years as a whole. In other words, highly educated wives have worked more hours in total in the first fifteen years of their relationship than poorly educated wives. There is no additional effect of the husband. Note that the educational effects are controlled for the presence and age of children in the household. The effect of wives' education on her cumulative working hours would be much stronger if we do not control for the fact that highly educated women postpone pregnancy (b=144 with p<.01 in the first five years, and b=520 with p<.01 in the first fifteen years).

Table 6.4 Cumulative working hours of couples: effects of husbands' and wives' human capital (OLS regression, unstandardized regression coefficients)

	cumulative working hours 0-5 years			**cumulative working hours 5-10 years**			**cumulative working hours 10-15 years**			**cumulative working hours first 15 years**		
COUPLES	b		se	b		se	b		se	b		se
intercept	15,424	**	595	13,962	**	584	11,805	**	606	41,286	**	1,750
year start relationship	765	**	178	585	**	155	541	**	153	2,059	**	436
age husband at start relationship	-31		44	-42		41	-36		41	-112		114
age wife at start relationship	23		51	3		47	-56		48	-56		132
years child < 4	-1,076	**	90	-818	**	81	-473	**	110	-751	**	127
years child >= 4	-1,049	**	275	-885	**	104	-492	**	95	-872	**	123
husband's education	-196	**	46	-97	*	43	-35		42	-325	**	119
wife's education	-55		54	83		49	143	**	49	195		138
R^2	0.18			0.14			0.06			0.12		

*** p<.01; * p<.05*

Source: Family Survey Dutch Population 1998, 2000, 2003; N=1,224

[3] The huge increase in explained variance between Model 1 and Model 2 is due to the dummy variable that indicates whether or not the respondent has been continuously non-employed in the particular period. This dummy variable is necessary in taking into account the missing values on hourly wage that are caused by consistent non-employment. Naturally, the score 1 of this dummy variable means zero hours of work, and is therefore an important contributor to the explained variance. A sensitivity analysis in which we select people who have at least worked one hour, shows slightly different coefficients of husbands' and wives' education, but does not alter the conclusions. The same is true for the analysis on wives' cumulative working hours.

Table 6.4 shows the consequences of the above-mentioned processes for the cumulative number of working hours for couples. Education reduces the cumulative working hours of men, whereas it increases working hours of women. The positive effect of wives' education cannot outweigh the negative effect of husbands' education (b=-325, p<.01 for husbands, and b=195 for wives which does not reach the level of significance). The negative relationship between couples' educational achievements and couples' cumulative working hours limits the accumulation of income in households. It is the highly educated couples who have higher hourly wages, though they work fewer hours. Accumulation would, naturally, be more extreme if the couples with the highest hourly wages also work most hours.

6.4.3 Cumulative income

We will now turn to the results on husbands', wives' (Table 6.5), and couples' incomes (Table 6.6). We have learned that poorly educated husbands work more hours, but at a lower wage rate. As a result, their total earnings do not differ significantly from that of highly educated men in the first five years of the relationship (b=-7). However, incomes of highly educated husbands rise faster during the life course than incomes of poorly educated husbands, and if we consider the first fifteen years of the relationship, we find that highly educated men have earned more: one year of extra schooling yields 2,486 Euros more net income. Partner's education does not contribute significantly to husbands' income. From the beginning, wives' educational achievements have raised female earnings significantly (b=576, b=1,194, and b=1,886 in the

Table 6.5 Cumulative income of husbands and wives: effects of individual and partner's human capital (OLS regression, unstandardized regression coefficients)

	cumulative income 0-5 years			**cumulative income 5-10 years**			**cumulative income 10-15 years**			**cumulative income first 15 years**		
HUSBANDS	b		se	b		se	b		se	b		se
intercept	81,054	**	3,646	83,167	**	4,100	88,706	**	4,782	250,801	**	12,815
year start relationship	-2,664	*	1,126	-2,120		1,114	-2,202		1,211	-7,030	*	3,241
age at start relationship	2,316	**	219	1,069	**	227	428		254	3,811	**	660
years child < 4	516		573	853		581	594		858	1,468		938
years child >= 4	-4,875	**	1,725	-184		750	86		750	-652		911
education	-7		291	912	**	307	1,652	**	336	2,486	**	881
partner's education	-68		340	361		355	161		391	442		1,023
R^2	0.09			0.04			0.03			0.04		
WIVES												
intercept	34,669	**	3,104	35,610	**	3,389	21,445	**	3,741	96,411	**	9,648
year start relationship	5,946	**	940	4,872	**	911	5,046	**	956	16,745	**	2,437
age at start relationship	570	**	212	388		214	-105		235	654		576
years child < 4	-8,584	**	478	-7,431	**	474	-4,703	**	691	-7,393	**	708
years child >= 4	-4,592	**	1,450	-7,530	**	614	-4,624	**	594	-6,977	**	688
education	576	*	284	1,194	**	290	1,886	**	309	3,783	**	769
partner's education	54		243	-86		252	-132		266	-97		664
R^2	0.36			0.29			0.14			0.28		

*** p<.01; * p<.05*

Source: Family Survey Dutch Population 1998, 2000, 2003; N=1,224

three subsequent five-year periods respectively). Wives' strong responsiveness to hourly wages is the main reason for this. Note that if we do not control for the presence and age of children, the income gap between highly and poorly educated women in the first fifteen years of their relationship would be 34 per cent larger. There is no net effect of their husbands' education. To sum up, there is no clear income gap between poorly and highly educated husbands in the first five years of their relationship, but the gap grows over the years in favour of the highly educated; for women, an income gap between highly and poorly educated exists from the beginning and becomes larger as time progresses.

Table 6.6 Cumulative income of couples: effects of husbands' and wives' human capital (OLS regression, unstandardized regression coefficients)

	cumulative income 0-5 years			**cumulative income 5-10 years**			**cumulative income 10-15 years**			**cumulative income first 15 years**		
COUPLES	b		se	b		se	b		se	b		se
intercept	116,790	**	5,077	119,012	**	5,578	109,574	**	6,166	347,962	**	16,670
year start relationship	3,271	*	1,516	2,765		1,479	2,843		1,551	9,759	*	4,154
age husband at start relationship	1,943	**	377	1,107	**	390	645		413	3,661	**	1,082
age wife at start relationship	913	*	436	493		449	-263		485	999		1,256
years child < 4	-8,104	**	771	-6,553	**	771	-4,080	**	1,122	-5,877	**	1,209
years child >= 4	-9,406	**	2,344	-7,742	**	997	-4,507	**	966	-7,663	**	1,172
husband's education	13		393	816	*	409	1,535	**	432	2,356	*	1,135
wife's education	519		458	1,543	**	471	2,037	**	501	4,210	**	1,311
R^2	0.19			0.15			0.08			0.14		

*** p<.01; * p<.05*

Source: Family Survey Dutch Population 1998, 2000, 2003; N=1,224

Can we conclude that highly educated couples have higher incomes, and that the incomes of poorly and highly educated couples diverge over the life course? Table 6.6 reveals that the answer is affirmative. Highly and poorly educated couples have no significantly different incomes after a five year relationship, but their incomes grow further apart over the years, since the revenues of an extra year of education increase over the life course. Both husbands' and wives' educational levels contribute to household earnings, but the impact of the husband is much smaller than the impact of the wife. With respect to the positive net effect of husbands' education, it is the positive relationship between education and wage rate that offsets the negative relationship between education and cumulative working hours. Education of the wife clearly makes a difference, both because highly educated wives work more hours in the long run and because they earn more per hour. The differences are considerable: in the first fifteen years of the relationship, a wife with the highest education adds 58,940 Euros (14*4,210) more to the couple's income than a wife with only primary education, and a husband with the highest education adds 32,984 (14*2,356) Euros more to a couple's income than a husband with only primary education. The conclusion is that a homogamous couple that attained the highest educational level, has earned 91,924 Euros more than a homogamous, primary educated couple. The impact of spouses' education is substantial if we consider that the average earnings in the first fifteen years of all

couples is 332,425 Euros. We can conclude that couples' earnings indeed diverge over the life course; the gap between poorly and highly educated couples becomes larger if we follow them longer. Figure 6.3 displays this growing gap for couples with different educational backgrounds by showing their cumulative incomes after five, ten, and fifteen years of having a relationship[4].

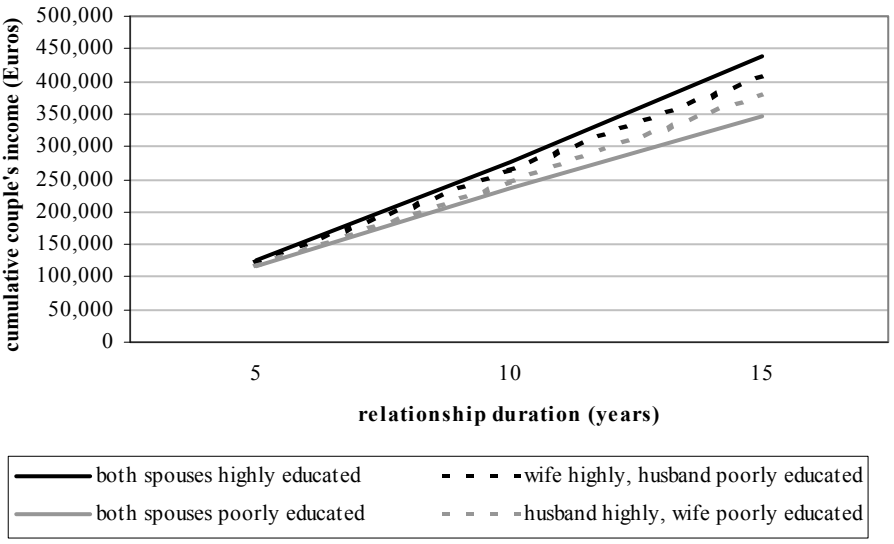


Figure 6.3 Divergence of couples' incomes over the life course by couples' educational levels

6.5 Conclusion

In this chapter, we were interested in the long term consequences of educational homogamy for couples' incomes. Education is an important contributor to occupational success and earnings, so spouses' resemblance in educational achievement accumulates resources on the couple level. During the life course, husbands and wives make occupational decisions with respect to career moves and working hours that improve or deteriorate their income levels. These decisions appear to be related to individual and partner's education; usually in the sense that it is the highly educated who obtain higher income levels. Such life course developments lead to divergence of couples' incomes, and this chapter aims to find out to what extent this is the case.

The results reveal that consequences of educational homogamy become especially severe in the long run: earnings of highly and poorly educated couples are not too different in the first five years of their relationship. This, predominantly because a higher education coincides with investments in time that cannot be spent on the labour market. However, as time progresses, the income gap between couples with much and little education becomes substantial. Major driving forces behind this divergence are the higher hourly wages among highly educated husbands and

[4] The cumulative incomes after 5 and 15 years correspond with numbers in Table 6.6, cumulative incomes after 10 years are not shown in the tables. Calculations have been based on score 0 for poorly educated and score 14 for highly educated, e.g. both spouses highly educated after 5 years: cumulative income = 116,790+(14*13)+(14*519).

wives, and the more intensive labour market participation among highly educated wives. Overall, income inequality between couples is more strongly driven by different labour market behaviour among women with different levels of education. The role of men is much smaller, although still significant. This result underlines the impact of the rise in female labour supply for inequality between couples.

Earlier, we mentioned four mechanisms that could contribute to diverging incomes of couples. Hourly wages, as well as working hours, could be stimulated by the educational level of the respondent and the partner. We found clear evidence for positive effects of education on hourly wages, both from the individual and the partner. Also, our results show that highly educated wives are more likely to work many hours than poorly educated wives, and their higher hourly wages appear to be a clear explanation for that. We do not find such a stimulation for men; for them, working hours hardly depend on their wage rate. Instead of an expected zero correlation between education and working hours for men, we find a negative correlation, which is a direct result of the longer time they spent at school while having a relationship. Finally, working hours are not correlated with the human capital of the spouse. We expected wives with highly educated husbands to work more, which is in line with the modern values regarding working women that highly educated men are likely to adhere to. This does not appear to be the case, just like highly educated women do not restrict the working hours of their husbands. The absence of any partner effect on working hours, and the presence of positive partner effects on hourly wage, do not support the new home economics, or the more general economic hypothesis that predicts a negative relationship between spouses' labour market careers.

We need to stress that our income measure is based on estimated hourly wages and only includes labour income. For these reasons, it might, to some extent, lack accuracy. A panel study with exact income information that follows couples for fifteen years could solve this problem, although one should keep in mind that such a design would probably not have detailed information (in months) on the timing of an income change and on multiple income changes between subsequent waves. This might lower accuracy to a similar or even greater extent. It is encouraging that our estimated wage rate covers a large majority of the employed Dutch men and women, but caution is recommended in the interpretation of exact absolute income levels. We cannot think of obvious reasons why the mechanisms themselves would be affected by our approach.

The strength of this study lies in showing the overall consequences of the many decisions couples make. Spouses make labour market decisions that are dependent and interrelated with many other decisions, such as each others' labour market careers; the timing and spacing of children; their preferences regarding work; and the combination between work, care, and leisure. We do not aim at understanding these separate decisions and interdependencies in this particular chapter, but we want to show the total cumulative effect of such decisions on the inequality between couples. The total effect represents the actual income situation couples are in, which largely determines their opportunities and those of their children.

Chapter 7

Conclusion

7.1 Background and questions of the study

A study on labour market careers of couples touches upon one of the principal factors which structure families' daily lives, and deals with a key component of inequality between households. For husbands and wives, and their children, labour market participation determines their daily routine, and success on the labour market sets the boundaries of their financial scope. For individuals, labour market careers are an important aspect of their lives, not only in terms of time and money, but also in terms of social prestige, self-actualization, fulfilment, and social contacts. Besides someone's own career, the career of the partner also shapes one's life, especially with regard to time and money constraints. Because partners share family responsibilities and make joint decisions in this respect, individual labour market careers are likely to be affected by the partner. This study deals with the interrelation between husbands' and wives' labour market careers in the Netherlands from a long term perspective.

The association between spouses' career outcomes indicates the degree of inequality between couples. The socio-economic position of a household is, in essence, the sum of the labour market careers of the two partners. The outcome of that sum will be especially favourable if 'successful' husbands are married to 'successful' wives, and relatively unfavourable if 'less successful' husbands are married to 'less successful' wives. In other words, the more positive the association between spouses' occupational outcomes, the higher the level of inequality between couples; and an increasingly positive association over time indicates increasing inequality. A negative association would imply that the inequality between couples is flattened: one successful labour market career goes hand in hand with one less successful career. This potentially large impact of spouses' occupational association on inequality between households motivates my first research question: to what extent are the labour market outcomes of husband and wife related, and has this relationship changed during the second half of the twentieth century?

The analysis of the first-published table which relates husbands' to wives' employment status in the United States in the 1970s, revealed that the positive association between spouses'

(non-)employment, with its far-reaching consequences for societal inequality, does not just reflect educational homogamy. This suggests that the association between spouses' labour market positions is not just a by-product of partner choice, and thus it is not present from the beginning of the relationship onwards, but it is partly formed during the relationship. To what extent this is the case, and what mechanisms are at work, is what I try to find out for the Netherlands. My second research question reads: to what extent are labour market outcomes restricted or supported by resources of the partner, and has this changed during the second half of the twentieth century?

As the two research questions make clear, I am interested in changes in the association and partner effects over time. This interest stems from the major societal changes in the previous century with respect to economic and cultural modernization. Especially female labour market behaviour and gender relations have changed drastically, and these are considered central issues in the way spouses form their own, and each others', labour market careers.

These general research questions are broken down into five empirical chapters. Table 7.1 gives an overview of the questions of the consecutive chapters, together with the data sources and method of analysis that is used in answering them.

Table 7.1 Overview of questions, data, and analysis of the empirical chapters in this book

	Questions	Data	Analysis
Chapter 2	1. To what extent are (a) labour market participation and (b) occupations of husbands and wives related? 2. To what extent can these relationships be attributed to educational homogamy? 3. To what extent do these relationships differ between cohorts?	Labour Force Surveys (EBB) 1994-2006	Log-linear analysis
Chapter 3	1. To what extent does spouse's human capital positively or negatively affect labour market participation, job level, and the combination of the two: income? 2. To what extent has the influence of spouse's human capital on labour market participation, job level, and income changed over time?	Labour Force Surveys (AKT/EBB) 1977-2006	Multinomial logistic regression Ordinary least square regression
Chapter 4	1. To what extent are working hours adjustments determined by labour market resources of the partner? 2. Under which conditions, specified as historical period, individual human capital, and the presence of children, do partner's resources influence working hours adjustments?	Family Survey Dutch Population 1998-2003	Event-history analysis
Chapter 5	1. To what extent do upward and downward job moves of men and women depend on (a) relationship status, and (b) on the labour market resources of the partner? 2. To what extent has the influence of (a) relationship status, and (b) the labour market resources of the partner changed between 1940 and 2003?	Family Survey Dutch Population 1998-2003	Event-history analysis
Chapter 6	1. To what extent do income differences between couples become larger or smaller due to accumulation processes during the life course?	Family Survey Dutch Population 1998-2003	Ordinary least square regression

In this concluding chapter, I summarize the main results of the five empirical chapters. Since some topics are spread over several chapters, I organize the summary around four topics. The first topic I go into (see Section 7.2) is the association between husbands' and wives' labour market participation and occupations, including possible changes in the association. This topic reflects the first general research question and is dealt with in Chapter 2. Secondly, I draw conclusions about the influence of the partner: is the partner a resource or a restriction to one's labour market career? These conclusions are based on Chapters 3, 4, 5, and 6 (Section 7.3). Thirdly, I combine the results of Chapters 3, 4, and 5, so as to report on changes in partner effects, in Section 7.4. Fourth, I make inferences from the results of this whole study on the consequences for inequality in society, giving special attention to Chapter 6 (Section 7.5). Finally, I reflect upon this study in a broader sense: what are its contributions to existing knowledge (Section 7.6), and what is the way to go in future (Section 7.7).

7.2 The association between spouses' labour market positions

The association between spouses' labour market positions is the central point in Chapter 2. Data from the Labour Force Surveys (1994-2006) on 234,688 couples between 25 and 55 years of age, have been analysed by means of log-linear modelling to assess the association between husbands' and wives' labour market participation and job level. Figure 7.1 displays the main results of the analysis on spouses' labour market participation. I find a positive correlation: the odds ratio is 2.46. Couples are two and a half times more likely to consist of two employed or two non-employed persons, than of one employed and one non-employed person; this positive association is in correspondence with previous studies. Odds ratios can also be interpreted in terms of division of paid labour between spouses; an odds ratio below 1 would imply that couples tend to have one working and one non-working person. The tendency of mothers to leave the labour force is the reason why the odds ratio appears to be lower for couples with children than for childless couples, but it is still higher than 1 (see Figure 7.1), indicating that even in couples with children, husbands and wives tend to be similar with respect to their labour market participation. A notable exception (not shown in Figure 7.1) to the finding of positive odds ratios, is the following tendency among dual worker couples with children: they are more likely to have one full-timer and one part-timer instead of two full-timers or two part-timers.

As can be expected, husbands' and wives' education partly explain the association between their labour market participation because education is positively related to employment and working hours (especially for women). More importantly however, is that the original association largely remains after controlling for spouses' educational achievements, and it should be noted that the educational control is extensive (15 combinations of level and field of education). As becomes clear from Figure 7.1, about three quarters of the association between husbands' and wives' labour market participation cannot be attributed to educational homogamy. This conclusion corroborates the American finding on the first husband-wife (non-)employment table. The largely unexplained association suggests that inequality between couples is larger than

can be expected on the basis of educational homogamy alone. It encourages looking for other factors, such as partner effects, in subsequent chapters.

Figure 7.1 also shows what conclusions we can draw with respect to trends in the association between husbands' and wives' labour market participation. A distinction into four birth cohorts revealed that the odds ratio of spouses' (non-)employment is almost similar for the 1940- and 1950-cohort, but increases in the younger two cohorts, up to almost 4 in the 1970-cohort. In sum, we conclude that the labour market participation of husbands and wives are positively correlated to a substantial extent, also after controlling for educational homogamy, and that the association has increased over time.

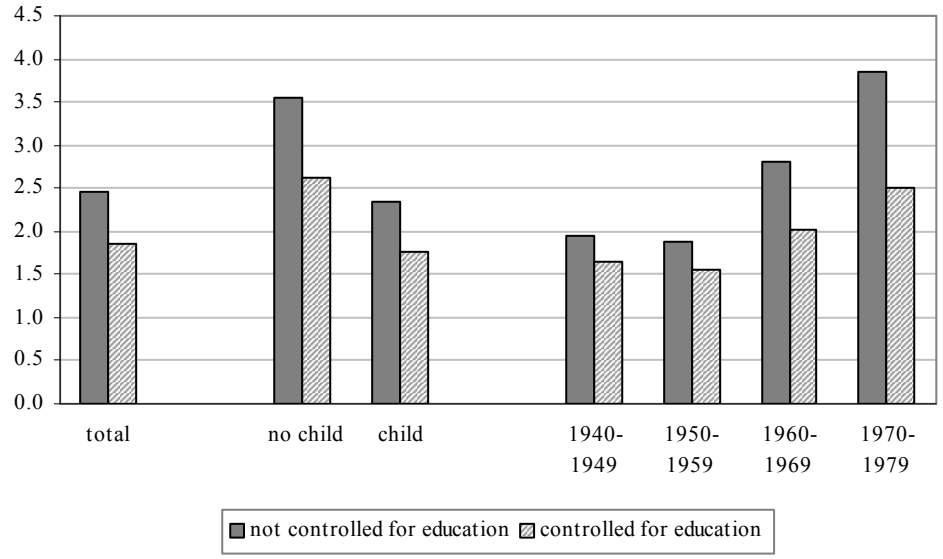


Figure 7.1 Odds ratios between husbands' and wives' (non-)employment by family stage and birth cohort, before and after controlling for couples' education

The fact that non-employment seems to come in couples has of course important consequences for inequality between couples. However, the incidence of this household arrangement is rather small, around 3 per cent of all Dutch couples, whereas two thirds of all couples consist of dual workers. Therefore, the next step is to focus on this group of dual worker couples, and to determine whether there is a tendency of spouses' occupational achievements being similar. If so, there is not only a gap in socio-economic terms between dual working and dual non-working couples, but also among dual working couples. The main conclusion from the log-linear models is that the association between husbands' and wives' job level is positive and very substantial. From the association measure phi (phi=26.8 based on standardized ISEI-scaling, ISEI as a proxy for lifetime or permanent income) we can deduce that a husband with an average low-level job (measured in terms of ISEI) is almost 27 times as likely to have a wife with the same job level than a wife with an average medium-level job, compared to a husband with an average medium-level job. The maximum odds ratio, that is, between the lowest and highest occupational level in

terms of ISEI, is 87. The huge size and statistical power of the Labour Force Surveys enable us to distinguish 47 occupational categories (combining level and field of occupation), which allow extensive modelling. This reveals that a quarter of the overall association can be explained by the tendency of husbands and wives to both work on a low, medium, high, or academic level, and from the tendency of husbands and wives to work in the exact same occupational category.

Again, the question whether the association can be completely attributed to educational homogamy is important, and must be answered in the negative. It does explain a substantial part of the association in job level, but half of the association based on an ISEI-scaling is not the result of husbands' and wives' educational achievements (from phi=26.8 to phi=13.0, see Figure 7.2). The fact that spouses have similar job levels must, therefore, depend on other mechanisms too, possibly occupational homogamy or positive partner effects.

Finally, I address the question whether a trend has been observed. The log-linear models do not provide evidence for a trend in the association of spouses' job level. Therefore, the conclusion is that there is a strong positive association between husbands' and wives' job level, which is not completely due to educational homogamy, and that the association has remained stable over time.

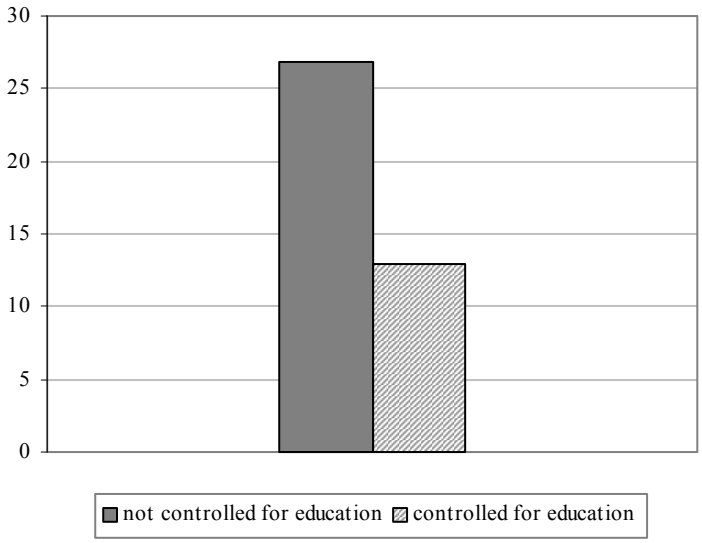


Figure 7.2 Association parameter (phi) for husbands' and wives' occupational level, before and after controlling for couples' education

7.3 The partner: resource or restriction?

Although the questions in this book do not focus on the effect of having a partner, Chapter 4 and Chapter 5 enable us to draw some conclusions about this. Men are found to benefit from having a partner: a partner stimulates their labour market participation and job level. Women's labour market participation is restricted by the presence of a partner, but the partner has no influence on women's occupational mobility.

The principal theoretical subject of this book, however, is the way labour market outcomes, such as labour market participation and job level, are influenced by the human capital of the spouse. I put the hypotheses on partner effects through several tests which use different methods of analysis and different data sets, in order to draw thorough and detailed conclusions about the tenability of the partner effect hypotheses. The combination of the results makes clear to what extent partner effects exist, and whether they are 'universal', or only applicable to a particular setting. Partner effects have been tested in Chapters 3 through 6. In Chapter 3, I use cross-sectional data from the Labour Force Surveys (1977-2006) to assess the relationships between the human capital of the partner and (a) labour market participation, (b) job level, and (c) the combination of these two: income. In Chapters 4 (on working hours) and 5 (on job level), I perform event-history analyses on complete retrospective careers of both spouses, based on the Family Survey Dutch Population (1998-2003). Such a dynamic design reflects more closely the actual decision processes in households with respect to labour market careers, and supports stronger statements about causality. In Chapter 6, I use a dynamic cumulative approach which is also based on the Family Survey Dutch Population. Here, couples are followed for fifteen years, and a test is done in order to find out to what extent cumulative numbers of working hours, job level, and cumulative income depend on the human capital of the spouse.

Theoretically, I distinguish three ways in which partners could influence each others' careers, resulting in expectations about the partner as a resource (positive partner effects) and the partner as a restriction (negative partner effects). Firstly, from an economic point of view, it can be argued that a spouse who is successful on the labour market takes away the financial incentive for the other spouse to work many hours and to put an effort into his or her career. Also, someone can afford not to be very successful on the labour market if the spouse has a successful career. These argument lead to the expectation of restrictive partner effects for both men and women. More in particular, it is hypothesized that negative partner effects are primarily applicable to labour market participation because restrictions seem predominantly relevant for couples' time budget. Secondly, a positive partner effect can be derived from a social capital point of view; this view states that people can benefit from the resources of their spouse, and use them to advance their own labour market career. Since social capital is mainly helpful in reaching high level jobs, positive partner effects are expected to be mainly applicable to occupational success. Thirdly, values of the partner concerning working women and division of labour are believed to affect men's and women's labour market careers. A high educational level cannot only be interpreted as a signal of (potential) labour market success and resources in general, but it can also be seen as an indicator of modern values. Since a modern view underlines the importance for women to have a career, and for fathers to have a caring role, highly educated husbands are expected to stimulate their wives' careers, and highly educated wives are expected to restrict their husbands' careers.

Based on the findings of Chapters 3 through 6, I conclude that the partner's human capital is a resource when it comes to labour market success, and that it is a restriction for labour market participation. The conclusion about the restrictive partner effect needs some refining though, as

will be explained in the next paragraph. The positive effect of partner's human capital on job level is consistently found throughout this study. The cross-sectional design that shows the relationship between partner's human capital and someone's job level (Chapter 3), the event-history design that examines the influence of partner's human capital on upward mobility (Chapter 5), and the accumulating approach that shows the influence of partner's human capital on the maximum wage rate during the life course (Chapter 6), all lead to the same conclusion, namely that partners act as a resource for each others' careers (the preventive effect of the spouse's joblessness on downward mobility in Chapter 5 is the only exception in this respect). Some illustrative results are that men and women are 80 per cent more likely to be upwardly mobile when they have a partner with the highest occupational status than when they have a partner with the lowest occupational status (Chapter 5); that every year of extra education of the wife increases her husband's hourly wage with five Euro cents (Chapter 3); and that over a fifteen year time span, the wife's education has a maximum impact on her husband's hourly wage of 2,72 Euros, which is a quarter of the average male wage rate (Chapter 6).

The general conclusion that the partner's human capital restricts labour market participation is less straightforward. A first comment is that the question of whether or not one is employed depends on different mechanisms than the question of how many hours one is employed, given that one has a job. Non-employment, both of husbands and wives, seems to be considered as an undesirable state by the higher strata in society, probably because of normative reasons. Female non-employment is (still) rather common in the Netherlands, but primarily so among poorly educated women. A highly educated or high job-level spouse prevents from being non-employed, both for men and women. This finding therefore implies a positive partner effect on labour market participation. The result can be considered to be in line with the positive odds ratio that was found in Chapter 2: non-employment comes in twos within the couples that have few resources.

A second comment is that the different tests (using three different techniques and two different data sets) produce contradicting results. The cross-sectional study on working hours, based on the Labour Force Surveys (Chapter 3), shows a negative relationship between partner's human capital and working hours: a partner with a high educational or occupational level reduces the probability of working full-time instead of part-time, and of having a large instead of a small part-time job. The dynamic study of Chapter 4 and the cumulative dynamic study of Chapter 6, both based on the Family Survey Dutch Population, do not provide support for negative partner effects on working hours adjustments; according to these studies, working hours adjustments and cumulative working hours do not depend on the human capital of the partner.

The paradox resulting from Chapters 3 and 4 could be rephrased as follows: I find that favourable resources of one partner are related to few working hours of the other partner, when we take a snapshot of all couples in society at one moment in time; while, when I zoom in on couples' life course, I find that a decision to adjust working hours at a particular moment in one's life does not depend on the resources of the partner at that particular moment. One explanation of

this paradox could be that partner effects on single events are too small, but that the sum of all these effects after several events is strong enough to show up in the results. However, the results of Chapter 6 refute this explanation: the partner has no significant influence on cumulative working hours. If the argument of small effects per event was correct, it should be in an analysis on cumulative working hours that the partner effect shows up, since this involves the sum of multiple adjustments during the life course.

I carried out some additional analyses (not shown), to investigate alternative explanations. Firstly, I repeated the multinomial logistic regressions on labour market participation of Chapter 3, based on the Labour Force Surveys, on the pooled cross-sections of the Family Surveys. If the paradox results from the difference in the way I treat labour market participation, namely as current states (non-employment, part-time, or full-time employment) in Chapter 3, and as events in Chapter 4, this additional analysis should yield comparable conclusions to those drawn in Chapter 3. In contrast, however, partner effects on labour market participation are absent in this additional analysis, which does not corroborate the findings of negative partner effects based on the Labour Force Surveys. Secondly, comparison of the strength of the effects found in Chapter 3 to the above-mentioned additional analysis, shows whether it is the difference in statistical power between the two data sets that causes the absence of partner effects in the Family Surveys and the presence of significant partner effects in the Labour Force Surveys. Indeed, in some cases, the strength of the partner effects in the additional Family Surveys analysis is similar to the partner effects in the original Labour Force Surveys analysis, while they do not reach the level of significance in the former. This pattern is not consistent, however, and is therefore insufficient for explaining the paradox fully. Thirdly, it could be that the negative correlation between the human capital of one spouse and the working hours of the other spouse already exists from the beginning of the relationship onwards. A negative correlation supports the economic argument of the division of labour: if one partner is successful on the labour market, the other partner has no incentives to work many hours and can afford to work few hours. Perhaps, couples opt for this division of labour from the moment they start a household. This could explain why I do not find the negative influence of the partner on a working hours adjustment during the life course, but that I do find the negative relationship in general. Another analysis on the Family Survey Dutch Population contradicts this explanation too; at the start of the relationship, the influence of partner's human capital is not found to be significantly negative. In sum, I must conclude that, despite the investigation of several possible explanations, a satisfactory explanation for the inconclusiveness of my results with respect to partner effects on labour market participation has not been found. Therefore, I remain cautious in my conclusion that human capital of the partner restricts labour market participation.

In summarizing the results with respect to the influence of the partner, not only the direction of the effects, but also the strength of the effects must be considered. It is important to stress that the influence of the partner's human capital is weak in comparison to the influence of one's own human capital. When making labour market career decisions, personal human capital

plays a decisive role, and partner's human capital is of minor importance. Note that this result does not necessarily contradict the idea that labour market career decisions are joint decisions of spouses. Spouses can jointly decide on a career move of the husband, taking only his human capital into account.

A plausible explanation for the relatively weak partner effects might be that contradicting mechanisms are simultaneously at work. For example, a highly educated husband stimulates his wife to work many hours and build a career, but at the same time, having a highly educated husband with a favourable labour market position makes it affordable to reduce working hours. The results in my models are net effects of these mechanisms, which cancel each other out to some extent.

7.4 Changing partner effects?

This study pays much attention to changes in partner effects over a relatively long period of time. In Chapter 3, I analyse possible changes in partner effects over birth cohorts, ranging from 1940 through 1979, and in Chapters 4 and 5 the observation window covers the period from 1940 through 2003. The major societal changes in the second half of the twentieth century were expected to have had an impact on the way spouses affect each others' careers. Two lines of reasoning are used throughout the book. On the one hand, the trend towards individualization and secularization could have diminished the influence of the partner because decisions have become more and more individualistic and less dependent on the social environment, including the partner. On the other hand, partner effects are not so much expected to decline as to change in direction. The modernization of norms and values could have taken away, or at least loosened, the restriction on female labour market careers, whereas spouses' support for male careers could have weakened, especially for working many hours, because in the modern view the father is expected to have a caring role too.

The cross-sectional analysis in Chapter 3 provides some indications that support the hypothesis based on the modernization of norms. However, interestingly and surprisingly enough, the event-history analyses in Chapters 4 and 5 show that the influence of the spouse on decisions regarding working hours adjustments and job mobility, has not been subject to change over a period of sixty years. With analyses that generally contain between 500 and 1,900 events, the absence of developments does not seem to be caused by a power problem. A highly educated or high job-level spouse did not have another role in the 1940s than in the beginning of the twenty-first century. And vice versa, the influence of women on their husbands' careers has not changed over time. Apparently, the appearance of part-time working fathers (who are usually highly educated men) has not become more likely in couples with a highly educated wife than in couples with a poorly educated wife, ceterus paribus. I think the conclusion about the lack of developments in partner effects is very surprising, and deserves more attention in the future (I will come back to this in Section 7.7).

7.5 Consequences for inequality

Throughout this book, I argue that an important justification for a study on couples' labour market careers is its potential impact on inequality between couples. Let us now turn to the consequences of this study's conclusions for inequality. Two mechanisms that potentially contribute to inequality between couples have been central in this book.

The first mechanism is the association between spouses' labour market participation and job level. Positive associations lead to accumulation of resources within couples; inequality between couples is higher as the association becomes more positive. Note that a positive association between spouses' labour market positions does not make inequality—in relative terms—between couples higher than between individuals. Inequality expressed in a relative measure is logically lower for couples' incomes than for individuals' incomes, on condition that the association between partners' incomes is less than one (though positive). Only if the positive association is perfect, will the richest men of the country marry the richest women. In the case of a non-perfect association, these men necessarily marry, on average, women with lower incomes. At the bottom of the distribution, a non-perfect association assumes that the poorest men do not marry the poorest women, but on average women with higher incomes. In other words, there is regression towards the mean. As a result, the standard deviation of couples' incomes becomes smaller than the standard deviation of individual incomes, and thus, the inequality between couples is lower than between individuals. For example, the gini coefficient is systematically found to be lower for couples' incomes than for individual incomes (Ultee, Arts, & Flap 2003, p. 338). In absolute terms however, accumulation of income does increase inequality between couples compared to individuals. If two partners with a high income and two partners with a low income end up together, the differences between couples' life conditions are greater than the differences between the life conditions of individuals.

Conclusions with respect to the association between spouses' labour market outcomes clearly point at accumulation of resources within couples. Thus, an occupationally successful husband is usually married to an occupationally successful wife, and vice versa, a husband with less occupational success is usually married to a wife with less occupational success. Success could be interpreted in terms of labour market participation and job level.

The second mechanism that stimulates inequality between couples is the extent to which partners further each others' careers during their relationship, thereby increasing the distance to couples who had less favourable starting positions. I find both supportive and restrictive partner effects, although the positive partner effects on job level are much more consistent throughout the separate empirical studies than the negative partner effects on working hours. Exercises to combine the positive and negative partner effects (on imputed income in Chapters 3 and 6) reveal that the positive effect outweighs the negative effect in strength. Therefore, also with respect to the second mechanism, that of partner effects, we have indications that inequality between couples is enhanced.

Chapter 6 describes an effort to quantify the degree of inequality between highly and poorly educated couples from a life course perspective. It should be clearly noted that the absolute amounts of income must be interpreted with care since they are imputed incomes based on occupational status and age (and age square), and not observed incomes. The results of this chapter show that during the life course the socio-economic positions of highly educated couples on the one hand, and poorly educated couples on the other hand, diverge substantially. The total amount of income couples earn in the first five years of the relationship does not appear to differ too much. Poorly educated couples earn 94 per cent of the income of highly educated couples, but over a fifteen years time span, this gap has risen to 79 per cent. In absolute terms, my estimation shows that highly educated couples have earned almost 100,000 Euros (net) more in these fifteen years than poorly educated couples. It is likely that the gap increases after the first fifteen years because the net rewards of education in terms of income grow during the life course, at least in the first fifteen years of the relationship. Note that inequality between the socio-economic positions of couples is not only relevant to the husbands and wives involved, but also to their children, who grow up in more or less favourable circumstances.

7.6 This study's contribution

The field of study that is chosen in this book combines two lines of research that have long traditions and cover large research areas. On the one hand, there is research on status attainment, which has become especially popular in sociology since the introduction of the status attainment model of Blau and Duncan (1967). The model indicates how occupational status depends on the achievement factors educational attainment and job level of the first job, and on the ascription factors father's educational and occupational attainment. On the other hand, research on sociology of the family emphasizes the fact that men and women are small firms and form households together. Homogamy studies are an example of an explicit introduction of the couple perspective. Gendered division of labour and the presence of children have often been central subjects in studies on labour market outcomes, particularly where women are concerned. Due to the emergence of dual working couples, the introduction of the couple or the partner as determinants for individual labour market decisions has gained popularity (Blossfeld & Drobnič, 2001). This line of research emphasizes that partners make joint decisions and that their labour market careers depend on each other. In this study, I tried to provide a comprehensive view on the influence of the partner on two main aspects of labour market careers—participation and job level—for Dutch women and men over a long period of time. On top of that, this study has provided insight into the consequences of the interrelatedness of husband's and wife's career for social inequality.

Theoretical expectations about the influence of the partner have been formulated in conflicting hypotheses. Progress has been made by a further elaboration of these hypotheses. Restrictive partner effects have been emphasized when it comes to labour market participation, whereas supportive partner effects have been emphasized when it comes to job level. The partner

effect hypotheses have been tested extensively from several points of views: from a cross-sectional, dynamic, and cumulative angle. Refined tests like the event-history analyses in Chapters 4 and 5 have been made possible by the rich and detailed information in the Family Surveys Dutch Population. It is quite unique to be able to connect the complete career of an individual from the first job through the current job, to the complete career of the partner; thereby perfectly giving the times of the stages of the relationship and of the family formation. My multi-angle approach adds to existing knowledge about the influence of the partner. Given the consistency of the findings, I am confident in stating that occupational success is enhanced by partner's human capital. Furthermore, the multi-angle approach demonstrated that conclusions about partner effects on labour market participation are not straightforward. This conclusion should serve as a warning for future conclusions based on a single-angle approach.

Furthermore, the historical perspective is an explicit elaboration on earlier studies which did not distinguish between historical periods. I have been able to examine a six-decade period, which is substantial. The absence of developments in the way husbands and wives influence each others' labour market careers is a surprising finding, but the hypotheses I formulated on changes in partner effects can be useful in future research, as I will outline in the next section.

7.7 Suggestions for future research

Based on the results of this study, I suggest three ways in particular, that can lead to progress in this field of research: (1) include a direct measure of income, (2) include a direct measure of values, and (3) perform country-comparisons.

First of all, for a further test of the economic hypothesis, a direct measure of income is preferable to the proxy used in this study; namely job level—if necessary weighted with working hours. In terms of human capital and potential labour market success, job level is a more appropriate measure, because income is very much dependent on the number of working hours and the phase of someone's career. It makes sense that couples partly base their decisions on the more general indicator of current and future labour market success. However, if we consider the economic hypothesis in a narrow sense—the financial situation of the partner determines to what extent someone is encouraged or discouraged to work more hours or to accept a better job—the current income position of the partner is the most accurate measure. Whereas in my study, job level and education usually have effects in the same direction, Bernasco (1994) found that income and education have opposite effects. Thus, a woman is less likely to re-enter the labour market if her husband has a high income or a low education. This result could serve as an indication that job level and income are indeed different things, but this needs to be established in a more extensive research which also includes job mobility and working hours adjustments of both men and women. An additional advantage of a sharper distinction between indicators of partner support and restriction, is that it might solve the problem of contradicting mechanisms that cancel each other out, resulting in relatively weak partner effects; the negative partner effect would be picked up by income and the positive partner effect by education. In the retrospective design I

used in Chapters 4, 5, and 6, income measures would most probably be very unreliable due to recalling issues. Therefore, a panel design seems the most promising way to go, in order to assess the influence of the partner's income versus job level. Note, however, that the benefit of having spouses' complete labour market careers is likely to be lost.

Secondly, I would recommend including direct measures of values. I have used religion as an indicator of traditional values in Chapter 4. Apart from that, education is used as a proxy, but education is much more than just values; especially in the context of labour market careers. I expect that the inclusion of proper measures of values will increase insight into the ways partners affect each others' careers, and that these kinds of partner effects exist alongside the effects of partners' human capital. In this case, values would refer to the preference side of the decision process, whereas human capital predominantly refers to the opportunity side of the decision process. Especially with respect to working hours decisions do I expect values to play an important role, since they deal specifically with the balance between caring for children oneself and outsourcing child care. A strong test for this hypothesis is needed, and by contesting this hypothesis with the economic hypothesis as the mechanism behind working hours decisions, it could produce more decisive conclusions about the falsification of the economic hypothesis (compare Chapter 4). Moreover, it would be interesting to see the interaction between preferences and opportunities.

Thirdly, in line with the values approach, a cross-national study would be a good direction to head in. The Netherlands are known for its liberal values towards working women, although personal preferences about the combination of work and care seem much more traditional. In this sense, the Netherlands are a special setting for research on couples' labour market careers. However, expectations derived from the new home economics and the social capital approach should be universal for the Western world, predicting negative and positive partner effects in every context. I like to argue that the cultural climate could affect the importance of these mechanisms. Restrictive partner effects on female labour market careers could be especially relevant in relatively traditional contexts since the economic arguments are backed up by values. Similarly, support for male working hours might be relatively weak in modern contexts since the benefits of supporting the husband do not withstand the preference to have a father who takes care of the children, thereby giving his wife the opportunity to have a career. It is this hypothesis, rephrased in terms of time periods instead of countries, which I tested in this study and for which I did not find strong support. A country comparison is a different way to test the underlying idea that contexts influence the way partners are a resource for, or a restriction to, each others' careers.

Samenvatting
(Summary in Dutch)

Achtergrond

Een opvallende verandering in de twintigste eeuw in Nederland – en de westerse wereld in het algemeen – is de sterke toename van het aantal werkende vrouwen. Deze ontwikkeling is een rijke voedingsbodem geweest voor sociologisch onderzoek naar het arbeidsmarktgedrag van vrouwen. De toename in arbeidsparticipatie van vrouwen veranderde niet alleen het leven van de betreffende vrouwen; het leven van alle gezinsleden ging er anders uit zien. Zo zorgt tegenwoordig in het merendeel van de gezinnen niet langer alleen de man voor het inkomen, maar levert ook de vrouw een financiële bijdrage. Dit heeft als consequentie dat de sociaal-economische positie van een gezin niet langer kan worden afgelezen aan de arbeidspositie van de man alleen, zoals vroeger gebruikelijk was. De positie van het gezin op de maatschappelijke ladder wordt tegenwoordig bepaald door man en vrouw samen. In ongelijkheidonderzoek heeft deze ontwikkeling ertoe geleid dat het individuele perspectief is uitgebreid met een parenperspectief.

Dit parenperspectief kwam bijvoorbeeld tot uiting in de Amerikaanse publicatie van de eerste kruistabel waarin de arbeidsparticipatie van de man werd afgezet tegen de arbeidsparticipatie van de vrouw in de jaren ‘70. Er werd gevonden dat werkloze mannen bovengemiddeld vaak werkloze vrouwen hebben en dat werkende mannen vaak ook werkende vrouwen hebben. Voor uitspraken over de ongelijkheid tussen paren is deze bevinding uiterst belangrijk. Immers, gunstige en ongunstige posities blijken te cumuleren binnen huishoudens wat tot gevolg heeft dat paren vaak of uit twee werkende personen bestaan of uit twee niet-werkende personen. Dit patroon leidt tot een grotere ongelijkheid tussen paren dan het traditionele patroon waarin een werkende partner vaak een niet-werkende partner heeft.

Ondanks het belang van deze bevinding, werd deze niet opzienbarend gevonden. Het is namelijk precies de uitkomst die verwacht kan worden op grond van opleidingshomogamie. Mensen zoeken een partner die op hen lijkt: een hoogopgeleide vrouw trouwt vaak met een hoogopgeleide man en een laagopgeleide man trouwt vaak met een laagopgeleide vrouw. In combinatie met de positieve samenhang tussen opleidingsniveau en de kans op werk, leidt opleidingshomogamie automatisch ook tot een positieve samenhang tussen arbeidsmarktposities; de bevinding dat partners vaak dezelfde arbeidsmarktposities innemen zou daarom simpelweg

een bijproduct van homogamie kunnen zijn. Onderzoek toonde echter aan dat opleidingshomogamie het verband tussen partners' arbeidsmarktparticipatie lang niet volledig kon verklaren. Deze conclusie was een aanwijzing dat er meer processen gaande moesten zijn tussen partners, die bijdroegen aan een positieve samenhang tussen hun beider arbeidsmarktposities en dus aan ongelijkheid tussen paren. Deze conclusie heeft een grote interesse opgewekt voor onderzoek naar arbeidsmarktuitkomsten van paren. In dit boek wil ik deze onderzoekstraditie een stap verder brengen. Ik richt me daarbij op Nederland vanaf het midden van de twintigste eeuw.

Twee onderzoekslijnen met het parenperspectief

Binnen het arbeidsmarktonderzoek dat het parenperspectief centraal stelt, zijn twee belangrijke onderzoekslijnen te onderscheiden die beide expliciet aan de orde komen in dit boek. In de eerste plaats betreft het onderzoek naar de samenhang tussen arbeidsmarktposities van man en vrouw. Deze samenhang is interessant, omdat deze sterke implicaties heeft voor de mate van ongelijkheid tussen paren: een positieve samenhang – zoals in het geval van de Amerikaanse kruistabel – wijst op meer ongelijkheid tussen paren, terwijl een negatieve samenhang de ongelijkheid tussen paren drukt.

De tweede onderzoekslijn bestudeert welke invloeden partners hebben op elkaars arbeidsmarktpositie, bijvoorbeeld: bepaalt de arbeidsmarktpositie van de man deels de arbeidsmarktpositie van de vrouw? Deze onderzoekslijn benadrukt de processen die binnen huishoudens spelen. Partners moeten samen een huishouden voeren waarin enerzijds voldoende inkomen gegarandeerd moet worden en anderzijds voldoende tijd moet zijn voor onbetaalde taken zoals het huishouden en de zorg voor kinderen. Bij het zoeken van deze balans worden arbeidsmarktbeslissingen genomen die afhankelijk zijn van de posities en kenmerken (in dit boek vaak samengevat als 'hulpbronnen') van beide partners. Deze zogenoemde partnereffecten kunnen een versterkend maar ook dempend effect hebben op de ongelijkheid tussen paren. Het eerste is het geval als een gunstige positie van de ene partner ook de arbeidsmarktpositie van de andere partner verbetert. Het laatste is het geval als een gunstige positie van de een ertoe leidt dat de ander een minder goede arbeidsmarktpositie bekleedt. Positieve partnereffecten zouden verantwoordelijk kunnen zijn voor het deel van de samenhang tussen partners' arbeidsmarktparticipatie in de Amerikaanse kruistabel dat niet verklaard kon worden door opleidingshomogamie. Deze tweede onderzoekslijn is daarom een zeer waardevolle aanvulling op onderzoek dat zich richt op de totale samenhang tussen arbeidsmarktposities van paren. Daarnaast is deze onderzoekslijn ook theoretisch interessant, aangezien er tegenstrijdige hypothesen bestaan over de manier waarop hulpbronnen van de partner arbeidsmarktuitkomsten beïnvloeden. De theoretische focus van dit proefschrift ligt dan ook hier.

Onderzoeksvragen

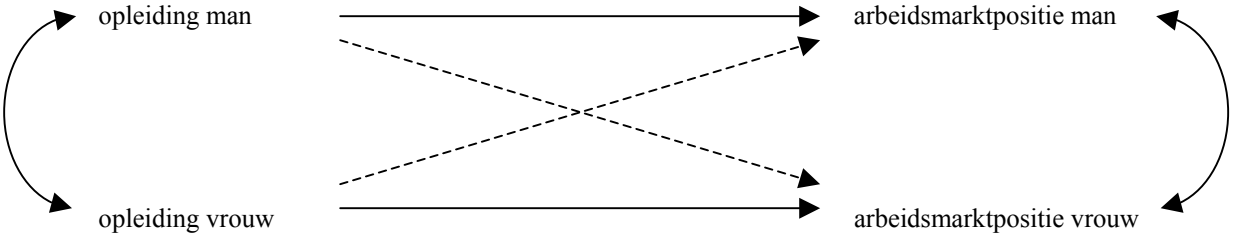
De beschreven onderzoekslijnen komen tot uiting in de onderzoeksvragen van deze studie, die worden toegepast op Nederland. Tevens ga ik in op veranderingen over de tijd, aangezien de aanleiding voor een onderzoek naar arbeidsmarktgedrag van paren ligt in de historische veranderingen die er met name op het gebied van arbeidsparticipatie van vrouwen zijn geweest. De twee centrale onderzoeksvragen luiden:

1) *In hoeverre hangen de arbeidsmarktuitkomsten van man en vrouw samen en is deze samenhang veranderd over de tijd?*
2) *In hoeverre worden arbeidsmarktuitkomsten positief of negatief beïnvloed door de hulpbronnen van de partner en is deze invloed veranderd over de tijd?*

Ik heb me gericht op twee typen arbeidsmarktuitkomsten, namelijk op participatie en op beroepsniveau. Met arbeidsmarktparticipatie doel ik zowel op de tweedeling tussen wel en niet werken als op het aantal uren dat iemand wekelijks werkt. Beroepsniveau wijst op de mate van succes op de arbeidsmarkt en is gedefinieerd in termen van beroepsstatus of uurloon.

Theorie: de partner als hulpbron of belemmering?

Figuur 1 geeft – in zeer simpele vorm – het uitgangspunt weer van het theoretisch model dat in dit boek is toegepast. De samenhang tussen de arbeidsmarktposities van man en vrouw (weergegeven aan de rechterkant van Figuur 1) kan het gevolg zijn van opleidingshomogamie in combinatie met het positieve verband tussen opleiding en arbeidsmarktposities. Deze bijproduct-verklaring is weergegeven met doorgetrokken pijlen en leidt tot de veronderstelling dat de samenhang tussen partners' arbeidsmarktposities in basis positief is. Daarnaast kan de associatie tussen arbeidsmarktposities van partners versterkt of verzwakt worden door partnereffecten: de invloed van hulpbronnen zoals opleiding van de man op de arbeidsmarktpositie van de vrouw en andersom (in Figuur 1 weergegeven met gestippelde pijlen).



Figuur 1 Theoretische verbanden tussen opleiding en arbeidsmarktposities van man en vrouw; bijproduct-verklaring uitgedrukt in doorgetrokken pijlen en partnereffecten in gestippelde pijlen

Ik heb tegengestelde hypothesen geformuleerd over de richting van deze partnereffecten. Vanuit economisch oogpunt kan worden beredeneerd dat partnereffecten negatief zullen zijn. Dit houdt

in dat naarmate een man een gunstigere arbeidsmarktpositie (veel hulpbronnen) heeft, zijn vrouw het relatief minder goed doet op de arbeidsmarkt en vice versa. Economische theorieën gaan ervan uit dat mensen keuzes maken die zoveel mogelijk nut opleveren. The new home economics theorie stelt dat het nut voor het huishouden maximaal is wanneer partners zich specialiseren in betaald dan wel onbetaald werk. Degene die de beste arbeidsmarktpositie heeft zou zich moeten specialiseren in betaald werk, zodat de andere partner automatisch de onbetaalde taken voor zijn of haar rekening zou moeten nemen. De meer algemene hypothese die van deze economische ideeën kan worden afgeleid is dat een gunstige arbeidsmarktpositie van de ene partner de financiële prikkels wegneemt van de andere partner om veel te werken en om carrière te maken. Of anders gezegd, een huishouden met een succesvolle partner kan het zich veroorloven dat de andere partner minder werkt of minder verdient. Ik verwacht dat dit economische mechanisme vooral betrekking heeft op arbeidsmarktparticipatie en in mindere mate op arbeidsmarktsucces. Tijd is beperkt waardoor het voor paren vooral moeilijk lijkt om twee voltijdbanen te combineren. Het combineren van twee hoge statusbanen is weliswaar ook veeleisend, maar deze leveren ook meer geld op waarmee tijdrovende huishoudtaken kunnen worden uitbesteed.

In tegenstelling tot dit economische perspectief leidt het sociaal kapitaal perspectief tot de voorspelling dat er positieve partnereffecten zullen zijn: een man met veel hulpbronnen kan zijn vrouw helpen om een gunstige arbeidsmarktpositie te bereiken en vice versa. Het mechanisme hierachter komt uit de sociaal kapitaal theorie. Mensen in iemands netwerk (zoals de partner) kunnen bruikbare informatie verschaffen over vacatures, kunnen contacten met potentiële werkgevers inzetten of een goed woordje doen, maar ook algemene vaardigheden overdragen die van pas komen op de arbeidsmarkt. Deze zaken helpen bij het bereiken van een gunstige arbeidsmarktpositie. Mensen met veel hulpbronnen zijn beter in staat te helpen dan mensen met minder hulpbronnen. In de context van arbeidsmarktuitkomsten is het daarom waarschijnlijk dat mensen met succesvolle partners meer profijt kunnen hebben dan mensen met minder succesvolle partners, hetgeen leidt tot de verwachting dat hulpbronnen van de ene partner een positieve invloed zullen hebben op de arbeidsmarktuitkomsten van de andere partner. Sociaal kapitaal kan helpen bij het vinden van een baan, maar het ligt niet voor de hand om te veronderstellen dat netwerken en de relevante informatie die daaruit voortkomt het aantal werkuren van iemand beïnvloeden. Dit geldt wel voor het vinden van een betere baan en dus voor het voorspellen van arbeidsmarktsucces. Ik verwacht daarom dat het positieve partnereffect vooral van toepassing is op arbeidsmarktsucces en in mindere mate op arbeidsmarktparticipatie.

Tenslotte zijn er verwachtingen opgesteld vanuit een waarden perspectief. In het algemeen proberen mensen hun gedrag in overeenstemming te brengen met de waarden en normen die zijzelf en hun omgeving hebben. Waarden die in het kader van arbeidsmarktgedrag van belang zijn betreffen het werken van vrouwen en moeders en de verdeling van taken tussen man en vrouw. Hoogopgeleiden blijken moderner over dit soort zaken te denken dan laagopgeleiden. We kunnen daarom afleiden dat mensen met een hoogopgeleide partner moderner arbeidsmarktgedrag tentoon zullen spreiden dan mensen met een laagopgeleide partner.

Wat als ‘modern’ en ‘traditioneel’ arbeidsmarktgedrag beschouwd kan worden, verschilt voor mannen en vrouwen. Traditionele waarden benadrukken dat vrouwen verantwoordelijk zijn voor de (zorg)taken in huis en moderne normen benadrukken het belang van onafhankelijkheid van de vrouw van haar man. We zouden daarom kunnen zeggen dat moderne vrouwen een voorkeur hebben om actief te zijn op de arbeidsmarkt en om carrière te maken. Voor mannen zit het anders. Zowel volgens traditionele als moderne waarden zouden mannen moeten werken en streven naar een goede baan. Het belangrijkste verschil tussen de twee zienswijzen zit in het belang dat mannen en vrouwen met moderne waarden hechten aan de zorgtaken van vaders. Als gevolg hiervan kan het als modern beschouwd worden als een vader in deeltijd werkt en eventueel een stapje terug doet als blijkt dat zijn verantwoordelijkheden op het werk niet te combineren zijn met zijn verantwoordelijkheden als vader. De hypothese vanuit het waarden perspectief luidt dan ook dat een hoogopgeleide partner een positief effect heeft op de arbeidsmarktpositie van vrouwen, maar een negatief effect op de arbeidsmarktpositie van mannen.

In dit boek zijn ook verwachtingen opgesteld over de verandering in de invloed van de partner. Redenerend vanuit sociale processen als individualisering en secularisering kan verwacht worden dat mensen hun gedrag in steeds mindere mate laten beïnvloeden door hun omgeving en daarmee ook in steeds mindere mate door hun partner. Deze redenering leidt tot de voorspelling dat de invloed van de partner kleiner is geworden in de loop der tijd. Redenerend vanuit processen als culturele en economische modernisering, verwacht ik niet zozeer een afname van de invloed van de partner, maar een veranderde invloed. Voor vrouwen valt gedrag dat past binnen de traditionele normen in feite samen met de uitkomst die volgt uit een negatief partnereffect: vrouwen, zeker als ze gehuwd zijn en kinderen hebben, horen niet te werken en verlaten de arbeidsmarkt zodra de financiële positie in het huishouden dit toelaat. Dit betekent dat het vroeger, toen traditionele waarden door het merendeel van de bevolking werden gedeeld, met name de vrouwen van mannen met veel hulpbronnen waren die niet werkten (hetgeen zich uitdrukt in een negatief partnereffect). Een stimulerende invloed van de man sluit beter aan bij moderne waarden die uitdragen dat het goed is als vrouwen een eigen carrière hebben. Tegenwoordig zijn het daarom met name de vrouwen van hoogopgeleide mannen die werken (een positief partnereffect). Deze verandering van een restrictieve naar een stimulerende invloed zal nog eens versterkt zijn door economische ontwikkelingen, die onder andere als gevolg hebben gehad dat het steeds meer in het belang van de man is, de loopbaan van zijn vrouw te ondersteunen: haar financiële bijdrage aan het huishoudinkomen lijkt in steeds sterkere mate onmisbaar. Voor mannen wordt een tegengestelde trend verwacht: met de verschuiving van traditionele naar moderne waarden, vinden steeds meer vrouwen het wenselijk dat de man zorgtaken op zich neemt en daarvoor zijn arbeidsmarktparticipatie verlaagt. Gevolg is dat hulpbronnen van de vrouw steeds meer een belemmering zijn geworden voor de loopbaan van de man in plaats van steun.

Data

Ik heb gebruik gemaakt van twee databronnen. In de eerste plaats heb ik de Enquête Beroepsbevolking (vroeger Arbeidskrachtentelling genaamd) van het Centraal Bureau voor de Statistiek gebruikt, waarbij ik de data uit 1977, 1991, 1994, 1995, 1996, 1997, 1998, 2000, 2001, 2002, 2003, 2004, 2005 en 2006 heb samengevoegd. Deze datasets zijn representatief voor de Nederlandse bevolking en bevatten gedetailleerde arbeidsmarktgegevens van beide partners. Het aantal waarnemingen is groot en de steekproeven en verzamelde gegevens worden als betrouwbaar gezien.

In de tweede plaats heb ik de Familie Enquête Nederlandse Bevolking gebruikt. De herhaalde crosssecties in 1998, 2000 en 2003 zijn goed vergelijkbaar en bevatten rijke informatie over de levensloop en leefsituatie van beide partners. De retrospectieve opzet van de gegevens maakt het mogelijk volledige carrières van beide partners op het gebied van arbeid, relaties en kinderen in kaart te brengen. Daarnaast is het mogelijk trends te onderzoeken in de invloed van de partner op arbeidsmarktcarrières, aangezien de vroegste carrières teruggaan tot de jaren ’40.

Vijf empirische studies

In dit boek kom ik tot antwoorden op de twee algemene onderzoeksvragen door arbeidsmarktposities van partners op verschillende manieren te onderzoeken. Dit is gebeurd in vijf empirische hoofdstukken waarvan ik hieronder de aanpak en resultaten zal samenvatten.

Hoofdstuk 2

De associatie tussen de arbeidsmarktposities van man en vrouw (geboortecohorten 1940 – 1979)

In dit hoofdstuk staat de eerste onderzoeksvraag centraal. Ik heb onderzocht in hoeverre de arbeidsmarktparticipatie en het arbeidsmarktsucces van partners samenhangen en of deze samenhangen zijn veranderd over de tijd. Daarnaast heb ik bekeken in hoeverre de samenhang is toe te schrijven aan opleidingshomogamie. De gebruikte gegevens zijn afkomstig uit de gestapelde databestanden van de Enquête Beroepsbevolking (N=234.688 paren) en geanalyseerd met behulp van log-lineaire modellen.

Als vooruitgang op eerder onderzoek heb ik niet alleen werkenden van niet-werkenden onderscheiden, maar ook onderscheid gemaakt tussen voltijd- en deeltijdwerkers. De resultaten laten een positieve en sterke samenhang zien tussen de arbeidsparticipatie van man en vrouw. Dit wil zeggen dat man en vrouw vaker dezelfde dan verschillende posities innemen. De positieve samenhang is een consistente bevinding; deze geldt voor alle onderscheiden categorieën (niet werken, deeltijd en voltijd), paren met en zonder kinderen en vroege en late cohorten. De enige uitzondering is gevonden bij tweeverdieners met kinderen: bij deze paren komt het vaker voor dat de ene partner voltijds werkt en de ander in deeltijd dan dat de partners een gelijke arbeidsparticipatie hebben. Het controleren voor opleiding is zeer uitgebreid gebeurd aan de hand van 15 onderscheiden opleidingscategorieën die zowel uitdrukking geven aan het niveau als aan de richting van de opleiding. Opleiding verklaart inderdaad een deel van het verband, maar tevens

blijft een groot deel onverklaard. Tenslotte laten de resultaten zien dat bij jonge geboortecohorten de samenhang tussen participatie op de arbeidsmarkt tussen man en vrouw sterker is dan bij oude cohorten. Deze bevinding geeft aan dat partners in toenemende mate dezelfde arbeidsmarktparticipatie hebben. Bij het vaststellen van deze verandering over cohorten is rekening gehouden met het feit dat mensen uit jonge cohorten minder vaak kinderen hebben dan mensen uit oude cohorten.

Voor het bepalen van de samenhang tussen het beroepsniveau van partners heb ik 47 beroepscategorieën onderscheiden. Deze gedetailleerde gegevens bieden de mogelijkheid de complexe relatie tussen de beroepen van man en vrouw goed te modelleren met behulp van log-lineaire modellen, geschaald naar gemiddelde ISEI-scores van iedere beroepscategorie. De resultaten laten zien dat er een positieve en substantiële samenhang bestaat tussen het arbeidsmarktsucces van partners (de odds ratio tussen laagste en hoogste beroepsstatus is 87). Het best passende model geeft aan dat de positieve samenhang in drie onderdelen uiteenvalt. In de eerste plaats bestaat de tendentie dat partners in precies dezelfde beroepscategorie werken (dat wil zeggen dat ze op de diagonaal zitten van de 47x47 tabel). Vallen ze niet in exact dezelfde beroepscategorie, dan is het waarschijnlijk dat ze beiden op een laag, middelhoog, hoog dan wel academisch niveau werken (de diagonaal met vier onderscheiden niveaus). Is ook dit niet het geval, dan is het waarschijnlijk dat hun beroepsniveaus in ieder geval dichtbij elkaar liggen (dit wordt uitgedrukt in een algemene associatiemaat). De samenhang tussen partners' arbeidsmarktsucces is voor ongeveer de helft toe te schrijven aan opleidingshomogamie, hetgeen betekent dat ook andere processen een rol spelen bij de totstandkoming van deze samenhang. Mogelijke processen zijn andere vormen van homogamie, zoals beroepshomogamie, en partners' wederzijdse invloeden. Er is geen significante trend gevonden in de sterkte van de associatie tussen het beroepsniveau van partners.

Hoofdstuk 3
Partnereffecten op arbeidsmarktparticipatie en arbeidsmarktsucces: tegengestelde mechanismen en hun gezamenlijke effect op inkomen (geboortecohorten 1940 – 1974)
Dit hoofdstuk richt zich op het vaststellen van de samenhang tussen hulpbronnen van de partner enerzijds en arbeidsmarktuitkomsten anderzijds. Dit is gebeurd aan de hand van crosssectionele gegevens van de gestapelde bestanden van de Enquête Beroepsbevolking (N=272.570 paren). Uitgangspunt in dit hoofdstuk is dat de negatieve partnereffecten vooral verwacht worden bij arbeidsmarktparticipatie (gesplitst in niet werken, deeltijd en voltijd), terwijl positieve partnereffecten vooral verwacht worden bij arbeidsmarktsucces (uitgedrukt in uurloon). Deze arbeidsmarktuitkomsten zijn afzonderlijk bestudeerd, maar ook is gekeken naar het netto effect van de partner: als er werkelijk tegenstrijdige effecten spelen, is het interessant te weten wat nu overheerst. Daarom zijn ook partnereffecten op inkomen (een combinatie van werkuren en uurloon) geanalyseerd.

De resultaten laten negatieve partnereffecten zien op de arbeidsmarktparticipatie van mannen en vrouwen. Uiteraard is er gecontroleerd voor eigen hulpbronnen en de aanwezigheid van kinderen. Arbeidsmarktsucces hangt positief samen met hulpbronnen van de partner, wederom voor mannen en vrouwen. Het positieve partnereffect blijkt te domineren als inkomen de afhankelijke variabele is, oftewel hulpbronnen van de partner in de vorm van opleiding en arbeidsmarktsucces bevorderen iemands inkomen. Het afzonderlijk bestuderen van arbeidsmarktparticipatie en arbeidsmarktsucces is nuttig gebleken om de achterliggende processen beter te begrijpen: afhankelijk van het type arbeidsmarktuitkomst hebben hulpbronnen van de partner een positieve of een negatieve invloed, maar het positieve partnereffect overheerst.

Veranderingen in partnereffecten zijn onderzocht door het vergelijken van geboortecohorten. De belemmerende werking van hulpbronnen van de partner op de loopbaan blijkt sterker geworden voor mannen en zwakker voor vrouwen. De stimulerende werking van hulpbronnen van de partner op arbeidsmarktsucces is zwakker geworden voor mannen en vrouwen. De optelsom van deze trends – die tot uitdrukking komt in de analyse op inkomen – leidt tot een stabiele invloed van de hulpbronnen van de vrouw op het inkomen van de man en een toenemend positieve invloed van de man op het inkomen van de vrouw. De gevonden veranderingen in partnereffecten lijken het meest in overeenstemming met de verwachting die gebaseerd is op de culturele en economische modernisering.

Hoofdstuk 4
Hulpbronnen van de partner en het aanpassen van werkuren (1940 – 2003)
In hoofdstuk 4 is expliciet een levensloopperspectief geïntroduceerd. Dit betekent dat complete loopbanen van respondenten en hun partners in kaart zijn gebracht met behulp van retrospectieve gegevens uit de Familie Enquête Nederlandse Bevolking (N=5.685 respondenten). Deze insteek is anders dan die in hoofdstuk 3, waarin mensen op één moment geobserveerd worden, namelijk op het moment van interview. De samenhang tussen hulpbronnen van de partner en arbeidsmarktuitkomsten die bij deze momentopname gevonden wordt, is in feite de samenhang die is ontstaan na meerdere loopbaanbeslissingen. In hoofdstuk 4 heb ik met een gebeurtenissenanalyse getoetst in hoeverre een verandering in arbeidsmarktparticipatie afhangt van de hulpbronnen waarover de partner beschikt vóór het plaatsvinden van die verandering. Het voordeel van deze methode is dat er met meer zekerheid kan worden vastgesteld of er sprake is van een causaal partnereffect en biedt daarom een sterkere toets van de hypothesen over partnereffecten. Er zijn vier typen aanpassingen in de arbeidsmarktparticipatie onderscheiden: de arbeidsmarkt betreden, de arbeidsmarkt verlaten, het wekelijkse aantal werkuren verhogen en het wekelijkse aantal werkuren verlagen.

De economisch georiënteerde hypothese die negatieve effecten voorspelt van hulpbronnen van de ene partner op de arbeidsmarktparticipatie van de andere partner staat in dit hoofdstuk centraal. Tevens zijn interactiehypothesen opgesteld die voorspellen onder welke condities, gespecificeerd als historische context, de hoeveelheid individuele hulpbronnen en de

aanwezigheid van kinderen, negatieve partnereffecten sterker aanwezig zullen zijn. De analyse bestaat uit drie delen en telkens is gecontroleerd voor eigen hulpbronnen en de aanwezigheid van kinderen. Eerst is vastgesteld of het hebben van een partner, ongeacht zijn of haar hulpbronnen, invloed heeft op de beslissing meer of minder te gaan werken. De resultaten laten zien dat het hebben van een partner de arbeidsmarktparticipatie van een vrouw belemmert, terwijl de binding met de arbeidsmarkt van de man sterker is als hij een partner heeft. Ten tweede is de invloed van de hulpbronnen van de partner onderzocht. Hieruit is gebleken dat de economische hypothese niet ondersteund wordt: in het algemeen geldt dat de keuze om de arbeidsmarkt te betreden of te verlaten en de keuze meer of minder uren te gaan werken niet afhangt van het opleidingsniveau en de arbeidsmarktpositie van de partner op het moment van die keuze. Tenslotte zijn de interactiehypothesen getoetst die voorspelden onder welke condities de economische hypothese sterker zou gelden. Het restrictieve partnereffect blijkt niet sterker te zijn in vroegere tijden en voor mensen met veel eigen hulpbronnen. Moeders blijken onder invloed van de hulpbronnen van hun man wel iets vaker een stapje terug te doen dan kinderloze vrouwen, maar voor mannen is een vergelijkbaar effect niet gevonden. Ik heb het hoofdstuk besloten met de uitspraak dat de invloed van de partner op veranderingen in arbeidsmarktparticipatie in sterkere mate met culturele aspecten, zoals normen en preferenties, te maken lijkt te hebben dan met economische aspecten.

Hoofdstuk 5
Hulpbronnen van de partner: steun of belemmering voor de arbeidsmarktcarrière (1940 – 2003)?
Dit hoofdstuk bevat dezelfde dynamische aanpak als hoofdstuk 4, maar richt zich op veranderingen in arbeidsmarktsucces, om precies te zijn op mobiliteit in beroepsstatus. De vraag is of hulpbronnen van de partner bijdragen aan de kans opwaarts mobiel te zijn en neerwaartse mobiliteit helpen te voorkomen of dat juist het tegenovergestelde het geval is, namelijk dat hulpbronnen van de partner een restrictie betekenen om hogerop te komen. Aan de hand van de retrospectieve carrièregegevens uit de Familie Enquête Nederlandse Bevolking worden opwaartse en neerwaartse carrièrestappen geanalyseerd met behulp van gebeurtenissenanalyse (N=5.068 respondenten).

De analyse bestaat uit twee delen: eerst is onderzocht of het hebben van een partner medebepalend is voor mobiliteit, daarna is voor alle mensen met een partner bekeken welke invloed er uit gaat van de hulpbronnen van de partner. Wederom is uitgebreid gecontroleerd voor eigen hulpbronnen en de aanwezigheid van kinderen. De resultaten geven aan dat de kansen voor opwaartse of neerwaartse mobiliteit niet anders zijn voor vrouwen met en zonder partner, terwijl mannen wel baat hebben in hun carrières bij het hebben van een partner, zij het in geringe mate. Daarnaast blijkt dat de kans op opwaartse mobiliteit stijgt met het beroepsniveau van de partner, hetgeen duidt op een positief partnereffect. Daar staat tegenover dat het hebben van een werkende partner (in vergelijking met een niet-werkende partner) de kans op neerwaartse mobiliteit

vergroot, hetgeen duidt op een negatief partnereffect. Er zijn geen historische veranderingen in de invloed van de partner gevonden.

Hoofdstuk 6
Cumulatieve inkomens van paren over de levensloop: divergentie of convergentie?
Het laatste empirische hoofdstuk hanteert eveneens een levensloopperspectief, maar verschilt qua invalshoek op twee belangrijke punten van hoofdstukken 4 en 5. In de eerste plaats worden nu paren gevolgd vanaf de start van hun relatie. In de tweede plaats worden er niet langer enkelvoudige gebeurtenissen bestudeerd, zoals het stoppen met werken of promotie maken, maar wordt bekeken wat het totale resultaat is van deze veranderingen tezamen op het moment dat paren vijftien jaar bij elkaar zijn. Loopbanen van man en vrouw kunnen positief beïnvloed worden door de eigen opleiding en de opleiding van de partner. Indien dit het geval is, blijkt dat paren die reeds een gunstige uitgangspositie hadden (de hoogopgeleide paren) het tijdens de levensloop beter doen op de arbeidsmarkt dan paren met een minder gunstige uitgangspositie (de laagopgeleide paren) en treedt er divergentie op: ongelijkheid tussen paren wordt groter als gevolg van de opeenstapeling van gunstige dan wel ongunstige arbeidsmarktuitkomsten gedurende de levensloop. Dit hoofdstuk heeft als doel inzicht te krijgen in de mate waarin de inkomens van laagopgeleide paren en hoogopgeleide paren uit elkaar groeien gedurende de levensloop. Uit deze conclusie blijken de lange termijn consequenties van het arbeidsmarktgedrag van paren voor de ongelijkheid tussen paren.

De gegevens uit de Familie Enquête Nederlandse Bevolking zijn nu dusdanig geprepareerd dat de arbeidsmarktposities van paren worden geobserveerd vanaf het moment dat hun relatie start en vervolgens voor iedere vijf jaar totdat ze vijftien jaar bij elkaar zijn (N=1.224 paren). Op deze momenten is voor de man en de vrouw apart vastgesteld hoe goed ze het doen op de arbeidsmarkt (uitgedrukt in maximaal verdiend uurloon) en hoeveel uren ze in die vijf jaar hebben gewerkt. Tenslotte is voor iedere maand uitgerekend hoeveel inkomen iemand heeft verdiend en dit wordt opgeteld om tot een cumulatief inkomen te komen.

De analyses in dit hoofdstuk zijn stapsgewijs opgebouwd. Eerst is gekeken naar de effecten van opleiding van man en vrouw op arbeidsmarktsucces. Niet verrassend blijken mannen en vrouwen met een hoge opleiding het beter te doen, maar daarbovenop draagt ook een hoogopgeleide partner bij aan een hoger uurloon (een positief partnereffect). Ten tweede zijn de effecten van opleiding van man en vrouw op het totaal aantal gewerkte uren vastgesteld. Hieruit blijkt dat hoogopgeleide mannen een achterstand hebben ten opzichte van laagopgeleide mannen, doordat ze door hun langere opleidingstijd minder uren actief hebben kunnen zijn op de arbeidsmarkt. Hoogopgeleide vrouwen halen deze achterstand in gewerkte uren op laagopgeleide vrouwen al vrij snel in, omdat ze vaker werken en meer uren werken. Op de lange termijn hebben hoogopgeleide vrouwen daarom meer uren gewerkt dan laagopgeleide vrouwen. Er zijn geen significante partnereffecten op het cumulatief aantal werkuren. In de derde stap zijn de consequenties voor inkomen bestudeerd. Het hogere uurloon van mannen met een hoge opleiding

compenseert ruimschoots het lagere aantal gewerkte uren, zodat er een netto voorsprong is van hoogopgeleide mannen. Bij vrouwen is de voorsprong van hoogopgeleiden nog groter. De conclusie van het hoofdstuk is dan ook dat er duidelijk divergentie optreedt tussen de inkomens van hoogopgeleide en laagopgeleide paren. Op het moment dat paren hun relatie starten verdienen laagopgeleide paren 94 procent van het inkomen van hoogopgeleide paren en na vijftien jaar is deze achterstand toegenomen tot 79 procent. De tijd die besteed wordt aan het volgen van een hoge opleiding heeft echter een drukkend effect op het absolute inkomensverschil tussen paren met veel en weinig opleiding, maar de impact hiervan wordt kleiner naarmate we een langere tijdsperiode in het leven van paren bestuderen.

Conclusie

De twee centrale onderzoeksvragen in dit boek zijn middels verschillende invalshoeken, datasets en analysemethoden beantwoord. Ik orden de samenvatting van deze resultaten naar vier onderwerpen: (a) de samenhang tussen arbeidsmarktposities van man en vrouw, (b) partnereffecten, (c) veranderingen in partnereffecten en (d) consequenties voor ongelijkheid tussen paren. Tenslotte zal ik deze studie in een breder perspectief plaatsen door in te gaan op de vooruitgang die geboekt is en op suggesties voor toekomstig onderzoek.

Lijken de arbeidsmarktposities van man en vrouw op elkaar? Een duidelijke conclusie uit dit onderzoek is dat de samenhang tussen partners' arbeidsmarktposities positief en substantieel is. Dit geldt zowel voor participatie als succes op de arbeidsmarkt. De eerste lijkt sterker te zijn geworden over de tijd, terwijl de laatste stabiel is gebleven. De samenhang tussen partners' arbeidsmarktposities is niet alleen het bijproduct van opleidingshomogamie en de relatie tussen opleiding en beroep op het individuele niveau. Deze conclusie geeft aanleiding te zoeken naar andere processen die mogelijk bijdragen aan deze positieve samenhang. Andere vormen van homogamie, zoals beroepshomogamie, en wederzijdse invloeden van man en vrouw zijn interessante alternatieven. Deze laatste, de invloed van de hulpbronnen van de partner, heeft een centrale plaats ingenomen in dit onderzoek.

In hoeverre blijkt de partner een hulpbron of een belemmering voor iemands arbeidsmarktpositie te zijn? In zeer algemene bewoordingen kunnen we concluderen dat een hoogopgeleide partner met een goede positie op de arbeidsmarkt als een hulpbron fungeert voor het bereiken van een hoog beroepsniveau (arbeidsmarktsucces), terwijl deze een belemmering is voor het aantal gewerkte uren (arbeidsmarktparticipatie). Met name deze laatste bewering behoeft echter de nodige nuance.

Het positieve partnereffect op arbeidsmarktsucces keert consistent terug in de verschillende empirische hoofdstukken: in de crosssectionele analyse op basis van de Enquête Beroepsbevolking in hoofdstuk 3, in de gebeurtenissenanalyse op basis van de Familie Enquête Nederlandse Bevolking in hoofdstuk 5 en in de cumulatieve dynamische studie op basis van dezelfde Familie Enquête in hoofdstuk 6 (met slechts de uitzondering dat een niet-werkende partner de kans op neerwaartse mobiliteit verkleint).

Het negatieve partnereffect op arbeidsmarktparticipatie vindt geen consistente ondersteuning in de verschillende hoofdstukken. De crosssectionele analyse op basis van de Enquête Beroepsbevolking in hoofdstuk 3 onderschrijft deze conclusie, maar in de gebeurtenissenanalyse en de cumulatieve dynamische studie op basis van de Familie Enquête Nederlandse Bevolking in hoofdstuk 4 en 6 worden geen effecten van de hulpbronnen van de partner gevonden. Deze tegenstrijdigheid zou als volgt verwoord kunnen worden: als we een momentopname nemen van alle paren in de samenleving, observeren we een samenhang tussen de hulpbronnen van de ene partner en de werkuren van de andere partner; bekijken we paren echter op het moment dat er iets verandert in de loopbaan van een van de twee, dan blijkt deze verandering van werkuren niet af te hangen van de hulpbronnen van de ander. Er kunnen verschillende verklaringen zijn voor deze paradox. Zo kunnen partnereffecten op een enkele verandering in de loopbaan te klein zijn om te kunnen waarnemen, terwijl deze op de lange duur (na meerdere veranderingen) wel waarneembaar zijn. Deze alternatieve verklaring is echter reeds weerlegd door de afwezigheid van partnereffecten in hoofdstuk 6 waar juist de cumulatie van loopbaanveranderingen is bestudeerd. Andere potentiële verklaringen zijn (a) het verschil in de definitie van participatie: statische categorieën in hoofdstuk 3 versus veranderingen in hoofdstuk 4, (b) het verschil in steekproefomvang tussen de Enquête Beroepsbevolking van hoofdstuk 3 en de Familie Enquête Nederlandse Bevolking van hoofdstuk 4, hetgeen mede bepaalt of effecten statistisch significant blijken en (c) dat de samenhang reeds aanwezig is vanaf het begin dat partners een relatie hebben en niet meer verandert gedurende de levensloop. Aanvullende analyses hebben geen van deze alternatieve verklaringen ondersteund. Voorzichtigheid bij de conclusie dat hulpbronnen van de partner een negatieve invloed hebben op de arbeidsmarktparticipatie blijft dan ook geboden.

Bij het beantwoorden van de vraag welke invloed de hulpbronnen van de partner hebben op arbeidsmarktuitkomsten, is niet alleen de richting van het effect, maar ook de sterkte van het effect relevant. Partnereffecten blijken relatief klein; eigen hulpbronnen zijn duidelijk veel belangrijker dan hulpbronnen van de partner. Deze conclusie is niet per definitie in tegenspraak met het idee dat loopbaanbeslissingen gezamenlijke beslissingen van man en vrouw zijn; paren kunnen bij het gezamenlijk beslissen over een carrièrestap van de man alleen zijn hulpbronnen in ogenschouw nemen.

Is de invloed van de partner veranderd over de tijd? De cohortanalyses in hoofdstuk 3 ondersteunen in grote lijnen de hypothese die is gebaseerd op het proces van culturele en economische modernisering. Deze verwachting luidde dat de invloed van de partner op arbeidsmarktuitkomsten van vrouwen verschoven is van restrictief naar stimulerend en op de arbeidsmarktuitkomsten van mannen van stimulerend naar restrictief. In hoofdstukken 4 en 5 waar een tijdspanne van meer dan 60 jaar is onderzocht, zijn echter geen veranderingen in partnereffecten geconstateerd. Dit is naar mijn mening een verrassende conclusie gezien de ingrijpende ontwikkelingen die zich in deze periode hebben voorgedaan op het gebied van man-

vrouw verhoudingen en de arbeidsmarktparticipatie van vrouwen. Ik zal hierop terugkomen bij de uiteenzetting van suggesties voor toekomstig onderzoek.

Welke consequenties hebben bovengenoemde conclusies voor de ongelijkheid tussen paren? In dit boek hebben twee mechanismen die kunnen bijdragen aan ongelijkheid centraal gestaan: de samenhang tussen de arbeidsmarktposities van partners en invloeden van de ene partner op de loopbaan van de andere partner. De resultaten op beide terreinen wijzen op cumulatie van hulpbronnen binnen huishoudens en dus op een versterking van ongelijkheid tussen paren. Hierbij dient echter te worden opgemerkt dat er ook enige aanwijzingen zijn voor negatieve partnereffecten die de mate van ongelijkheid tussen paren dempen, ook al blijken positieve partnereffecten de overhand te hebben.

Dit boek combineert twee rijke onderzoekstradities binnen de sociologie. Enerzijds betreft dit het statusverwervingsonderzoek dat ingaat op factoren die bijdragen aan beroepssucces. Anderzijds is dit de gezinssociologie die als uitgangspunt neemt dat mannen en vrouwen niet alleen gezien moeten worden als individuen, maar ook als leden van een paar. Onderwerpen die hierbij bestudeerd worden zijn homogamie, de arbeidsverdeling tussen man en vrouw, de invloed van kinderen op loopbanen en de invloed die partners uitoefenen op elkaars loopbanen. In dit onderzoek heb ik getracht te komen tot een gedegen beeld van loopbanen van partners in Nederland door deze vanuit verschillende invalshoeken, met verschillende databestanden en verschillende onderzoeksmethoden te bestuderen. Vooruitgang is geboekt door het opstellen van tegenstrijdige hypothesen die zijn toegespitst op verschillende aspecten van de loopbaan, namelijk participatie en succes. De rijke retrospectieve data van de Familie Enquête Nederlandse Bevolking hebben verfijnde toetsen mogelijk gemaakt van deze hypothesen. Juist door de toepassing van verschillende invalshoeken is duidelijk geworden dat de stimulerende invloed van de hulpbronnen van de partner op beroepssucces een consistente bevinding is. Tevens is duidelijk geworden dat er niet zonder meer gesproken kan worden over de belemmerende invloed van de hulpbronnen van de partner op arbeidsmarktparticipatie, hetgeen als waarschuwing kan gelden voor onderzoek dat deze relatie vanuit slechts één invalshoek bestudeert. Het historische perspectief dat in het hele boek is toegepast is een uitbreiding op eerdere studies en heeft de interessante conclusie opgeleverd dat er weinig veranderd is in de manier waarop hulpbronnen van de partner de loopbaan van man en vrouw beïnvloeden.

Ter afsluiting ga ik in op drie suggesties voor toekomstig onderzoek. In de eerste plaats verwacht ik dat een directe maat voor inkomen of uurloon waardevol is voor een strengere toets van de economische hypothese, die een negatieve invloed van hulpbronnen van de partner voorspelt. Beroepsstatus, soms omgezet in uurloon, betreft een goede maat om weer te geven dat paren hun beslissingen ook laten afhangen van toekomstig beroepssucces. Inkomen is in zo'n geval minder geschikt, omdat het sterk afhankelijk van het huidige aantal gewerkte uren. Voor het toetsen van het economische idee in enge zin, namelijk dat een paar het zich kan veroorloven dat de één een stapje terug doet als de ander veel verdient, is het huidige inkomen echter wel een betere maat. Een aanwijzing dat beroepsstatus en inkomen inderdaad andere dingen zijn, komt

voort uit de observatie dat in dit onderzoek beroepsstatus en opleiding vaak effecten hebben in dezelfde richting, terwijl Bernasco (1994) gevonden heeft dat inkomen en opleiding tegengestelde effecten hebben. Een bijkomend voordeel van een directe inkomensmaat is dat positieve en negatieve effecten beter uit elkaar gehaald kunnen worden. In dit onderzoek kan niet worden uitgesloten dat zij elkaar deels opheffen, zodat de gevonden partnereffecten mogelijk kleiner lijken dan ze in werkelijkheid zijn. Het retrospectieve design dat ik gebruikt heb in hoofdstukken 4, 5 en 6 is niet geschikt om naar inkomens van respondenten te vragen, omdat het voor respondenten erg moeilijk is het exacte inkomen te herinneren van een baan lang geleden. Een panel studie is waarschijnlijk de beste manier om aan geschikte inkomensdata te komen.

Een tweede suggestie voor vervolgonderzoek is het opnemen van een directe maat voor waardeopvattingen om hypothesen op dit terrein scherper te toetsen. In hoofdstuk 4 heb ik religie gebruikt als indicator voor traditionele waarden, maar in overige hoofdstukken is opleiding de gebruikte proxy. Zeker als het gaat om loopbanen, bevat opleiding veel meer dan alleen een aanwijzing voor moderne of traditionele waarden. Het opnemen van een directe meting voor traditionele en moderne waarden maakt een betere splitsing mogelijk van de verschillende zaken waar opleiding voor staat. In dat geval staan waardeopvattingen voor preferenties op het gebied van loopbanen en opleiding voor de mogelijkheden die iemand op de arbeidsmarkt heeft. Ook het bekijken van het samenspel tussen voorkeuren en mogelijkheden zou hierbij interessant zijn.

Tenslotte wil ik een landenvergelijkende studie voorstellen. De hypothesen die ik heb opgesteld over historische veranderingen gaan er in basis van uit dat de context waarin een paar leeft, gevolgen heeft voor de manier waarop man en vrouw elkaars loopbanen beïnvloeden. Deze trendhypothesen hebben geen ondersteuning gevonden in dit boek. Dit verrassende resultaat maakt het interessant deze hypothese op een alternatieve manier te toetsen. Het onderzoeken van de invloed van partners op elkaars loopbanen in verschillende landen biedt hiertoe goede mogelijkheden.

References

Alwin, D. F., Braun, M., & Scott, J. (1992). The Separation of Work and the Family: Attitudes towards Women's Labour-Force Participation in Germany, Great Britain, and the United States. *European Sociological Review, 8*(1), 13-37.

Avellar, S., & Smock, P. J. (2003). Has the Price of Motherhood Declined over Time? A Cross-Cohort Comparison of the Motherhood Wage Penalty. *Journal of Marriage and the Family, 65*(3), 597-607.

Beck, E. M., Horan, P. M., & Tolbert II, C. M. (1978). Stratification in a Dual Economy: A Sectoral Model of Earnings Determination. *American Sociological Review, 43*(5), 704-720.

Becker, G. S. (1964). *Human Capital: A Theoretical and Empirical Analysis, with Specific Reference to Education*. New York: National Bureau of Economic Research.

Becker, G. S. (1981). *A Treatise on the Family*. Cambridge, MA: Harvard University Press.

Becker, J., & De Hart, J. (2006). *Godsdienstige Veranderingen in Nederland. Verschuivingen in de Binding met de Kerken en de Christelijke Traditie*. Den Haag: Sociaal and Cultureel Planbureau.

Benham, L. (1974). Benefits of Women's Education within Marriage. *The Journal of Political Economy, 82*(2, Part 2: Marriage, Family Human Capital, and Fertility), S57-S71.

Bernard, J. S. (1972). *The Future of Marriage*. New York: World Publishing Company.

Bernardi, F. (1999). Does the Husband Matter? Married Women and Employment in Italy. *European Sociological Review, 15*(3), 285-300.

Bernasco, W. (1994). *Coupled Careers: The Effects of Spouse's Resources on Success at Work*. Amsterdam: Thesis Publishers.

Bernasco, W., de Graaf, P. M., & Ultee, W. C. (1998). Coupled Careers: Effects of Spouse's Resources on Occupational Attainment in the Netherlands. *European Sociological Review, 14*(1), 15-31.

Bielby, W. T., & Bielby, D. D. (1992). I Will Follow Him – Family Ties, Gender-Role Beliefs, and Reluctance to Relocate for a Better Job. *American Journal of Sociology, 97*(5), 1241-1267.

Blau, P. M., & Duncan, O. D. (1967). *The American Occupational Structure*. New York: Wiley.

Blau, P. M., & Schwarz, J. (1984). *Cross-Cutting Social Circles*. New York: Academic Press.

Blossfeld, H.-P. (1986). Career Opportunities in the Federal Republic of Germany: A Dynamic Approach to the Study of Life-Course, Cohort, and Period Effects. *European Sociological Review, 2*(3), 208-225.

Blossfeld, H.-P., & Drobnič, S. (2001). *Careers of Couples in Contemporary Societies: From Male Breadwinner to Dual Earner Families*. New York: Oxford University Press.

Blossfeld, H.-P., & Hakim, C. (1997). *Between Equalization and Marginalization: Women Working Part-Time in Europe and the United States of America*. Oxford: Oxford University Press.

Blossfeld, H.-P., & Huinink, J. (1991). Human Capital Investments or Norms of Role Transition? How Women's Schooling and Career Affect the Process of Family Formation. *American Journal of Sociology, 97*(1), 143-168.

Blossfeld, H.-P., & Mayer, K. U. (1988). Labor-Market Segmentation in the Federal Republic of Germany: An Empirical Study of Segmentation Theories from a Life Course Perspective. *European Sociological Review, 4*(2), 123-140.

Bourdieu, P. (1986). The Forms of Capital. In J. G. Richardson (Ed.), *Handbook of Theory and Research for the Sociology of Education* (pp. 241-258). New York: Greenwood Press.

Brynin, M., & Francesconi, M. (2004). The Material Returns to Partnership: The Effects of Educational Matching on Labour Market Outcomes and Gender Equality. *European Sociological Review, 20*(4), 363-377.

Brynin, M., & Schupp, J. (2000). Education, Employment, and Gender Inequality amongst Couples: A Comparative Analysis of Britain and Germany. *European Sociological Review, 16*(4), 349-365.

Carroll, G. R., & Mayer, K. U. (1986). Job-Shift Patterns in the Federal Republic of Germany: The Effects of Social Class, Industrial Sector, and Organizational Size. *American Sociological Review, 51*(3), 323-341.

Cooke, K. (1987). The Withdrawal from Paid Work of Wives of Unemployed Men: A Review of Research. *Journal of Social Policy, 16*(3), 371-382.

Davies, R. B., Elias, P., & Penn, R. (1994). The Relationship between a Husband's Unemployment and his Wife's Participation in the Labour Force. In D. Gallie, C. Marsh

& C. Vogler (Eds.), *Social Change and the Experience of Unemployment*. Oxford: Oxford University Press.

Davies, R., & Pierre, G. (2005). The Family Gap in Pay in Europe: A Cross-Country Study. *Labour Economics, 12*(4), 469-486.

Davis, K. (1984). Wives and Work: The Sex Role Revolution and Its Consequences. *Population and Development Review, 10*(3), 397-417.

de Graaf, N. D., de Graaf, P. M., Kraaykamp, G., & Ultee, W. C. (1998). *Family Survey Dutch Population 1998 (dataset)*. Nijmegen University: Sociology.

de Graaf, N. D., de Graaf, P. M., Kraaykamp, G., & Ultee, W. C. (2000). *Family Survey Dutch Population 2000 (dataset)*. Nijmegen University: Sociology.

de Graaf, N. D., de Graaf, P. M., Kraaykamp, G., & Ultee, W. C. (2003). *Family Survey Dutch Population 2003 (dataset)*. Nijmegen University: Sociology.

de Graaf, P. M., & Kats, K. (2007). Kinderen en de Arbeidsmarktparticipatie van Vrouwen: de Invloed van Timing en Spacing in Levensloopperspectief. In T. Van der Lippe, P. A. Dykstra, G. Kraaykamp & J. Schippers (Eds.), *De Maakbaarheid van de Levensloop*. Assen: Van Gorcum.

de Graaf, P. M., & Ultee, W. C. (2000). United in Employment, United in Unemployment? Employment and Unemployment in Couples in the European Union in 1994. In D. Gallie & S. Paugam (Eds.), *Welfare Regimes and the Experience of Unemployment in Europe* (pp. 265-285). Oxford: Oxford University Press.

de Graaf, P. M., & Vermeulen, H. (1997). Female Labour-Market Participation in the Netherlands: Developments in the Relationship between Family Cycle and Employment. In H.-P. Blossfeld & C. Hakim (Eds.), *Between Equalization and Marginalization. Women Working Part-time in Europe and the United States of America* (pp. 191-209). Oxford: Oxford University Press.

De Vries, J. (2006). *Measurement Error in Family Background Variables. The Bias in the Intergenerational Transmission of Status, Cultural Consumption, Party Preference, and Religiosity*. ICS-dissertation, Radboud University Nijmegen, Nijmegen.

Delsen, L. (1998). When Do Men Work Part-Time? In J. O'Reilly & C. Fagan (Eds.), *Part-time Prospects. An International Comparisons of Part-Time Work in Europe, North America and the Pacific Rim* (pp. 57-76). London: Routledge.

Dex, S., Gustafsson, S., Smith, N., & Callan, T. (1995). Cross-National Comparisons of the Labour Force Participation of Women Married to Unemployed Men. *Oxford Economic Papers, New Series, 47*(4), 611-635.

DiPrete, T. A. (2002). Life Course Risks, Mobility Regimes, and Mobility Consequences: A Comparison of Sweden, Germany, and the United States. *American Journal of Sociology, 108*(2), 267-309.

Eggebeen, D. J., & Hawkins, A. J. (1990). Economic Need and Wives' Employment. *Journal of Family Issues, 11*(1), 48-66.

Felmlee, D. H. (1982). Women's Job Mobility Processes within and between Employers. *American Sociological Review, 47*(1), 142-151.

Ganzeboom, H. B. G., de Graaf, P. M., & Treiman, D. J. (1992). A Standard International Socioeconomic Index of Occupational Status. *Social Science Research, 21*(1), 1-56.

Hakim, C. (2000). *Work-Lifestyle Choices in the 21st Century: Preference Theory*. Oxford: Oxford University Press.

Hakim, C. (2002). Lifestyle Preferences as Determinants of Women's Differentiated Labor Market Careers. *Work and Occupations, 29*(4), 428-459.

Halvorsen, K. (1999). Labour Force Status of Married/Cohabiting Couples in Norway: Associations and Explanations of (Un)Employment Homogamy. *Working paper, Centre for Comparative Welfare state Studies (CCWS), Department of Economics, Politics and Public Administration, Aalborg University.*

Hauser, R. M., & Warren, J. R. (1997). Socioeconomic Indexes for Occupations: A Review, Update, and Critique. *Sociological Methodology, 27*(177-298).

Hendrickx, J., Bernasco, W., & de Graaf, P. M. (2001). Couples' Labour-Market Participation in the Netherlands. In H.-P. Blossfeld & S. Drobnič (Eds.), *Careers of Couples in Contemporary Societies: From Male Breadwinner to Dual Earner Families* (pp. 77-97). New York: Oxford University Press.

Henkens, K., Grift, Y., & Siegers, J. (2002). Changes in Female Labour Supply in the Netherlands 1989-1998: The Case of Married and Cohabiting Women. *European Journal of Population, 18*(1), 39-57.

Henkens, K., Kraaykamp, G., & Siegers, J. (1993). Married Couples and Their Labour Market Status: A Study of the Relationship between the Labour Market Status of Partners. *European Sociological Review, 9*(1), 67-78.

Henz, U., & Sundström, M. (2001). Partner Choice and Women's Paid Work in Sweden: The Role of Earnings. *European Sociological Review, 17*(3), 295-316.

Hill, M. S. (1979). Wage Effects of Marital-Status and Children. *Journal of Human Resources, 14*(4), 579-594.

Hout, M. (1982). The Association between Husbands' and Wives' Occupations in Two-Earner Families. *American Journal of Sociology, 88*(2), 397-409.

Hout, M. (1983). Mobility Tables. London: Sage.

Hout, M. (1984). Status, Autonomy, and Training in Occupational-Mobility. *American Journal of Sociology, 89*(6), 1379-1409.

Irwin, S., & Morris, L. (1993). Social Security or Economic Insecurity? The Concentration of Unemployment (and Research) Within Households. *Journal of Social Policy, 22*(3), 349-372.

Jacobs, J. A., & Gornick, J. C. (2001). Hours of Paid Work in Dual Earner Couples: The U.S. in Cross-National Perspective. *Luxembourg Income Study Working Paper No. 253. Syracuse, NY, Center for Policy Research, Syracuse University. March.*

Jansen, M., & Kalmijn, M. (2000). Emancipatiewaarden en de Levensloop van Jong-Volwassen Vrouwen: Een Panelanalyse van Wederzijdse Invloeden. *Sociologische Gids, 47*(4), 293-314.

Joshi, H., & Hinde, P. R. A. (1993). Employment after Childbearing in Post-War Britain: Cohort-Study Evidence on Contrasts within and across Generations. *European Sociological Review, 9*(3), 203-227.

Kalmijn, M. (1991a). Shifting Boundaries – Trends in Religious and Educational Homogamy. *American Sociological Review, 56*(6), 786-800.

Kalmijn, M. (1991b). Status Homogamy in the United States. *American Journal of Sociology, 97*(2), 496-522.

Kalmijn, M. (1994). Assortative Mating by Cultural and Economic Occupational Status. *American Journal of Sociology, 100*(2), 422-452.

Kalmijn, M. (1998). Intermarriage and Homogamy: Causes, Patterns, Trends. *Annual Review of Sociology, 24*, 395-421.

Kalmijn, M., & Flap, H. (2001). Assortative Meeting and Mating: Unintended Consequences of Organized Settings for Partner Choices. *Social Forces, 79*(4), 1289-1312.

Kalmijn, M., & Luijkx, R. (2005). Has the Reciprocal Relationship between Employment and Marriage Changed for Men? An Analysis of the Life Histories of Men Born in the Netherlands between 1930 and 1970. *Population Studies, 59*(2), 211-231.

Kalmijn, M., & Luijkx, R. (2006). Changes in Women's Employment and Occupational Mobility in the Netherlands: 1955 to 2000. In H.-P. Blossfeld & H. Hofmeister (Eds.), *Globalization, Uncertainty and Women's Careers: An International Comparison* (pp. 84-113). Cheltenham: Edward Elgar.

Kaufman, G., & Uhlenberg, P. (2000). The Influence of Parenthood on the Work Effort of Married Men and Women. *Social Forces, 78*(3), 931-949.

Korenman, S., & Neumark, D. (1991). Does Marriage Really Make Men More Productive? *Journal of Human Resources, 26*(2), 282-307.

Korenman, S., & Neumark, D. (1992). Marriage, Motherhood, and Wages. *Journal of Human Resources, 27*(2), 233-255.

Kraaykamp, G. (2007). Employment Status and Sex-Role Attitudes: An Analysis of Trends. *Unpublished manuscript*.

Lin, N., Vaughn, J. C., & Ensel, W. M. (1981). Social Resources and Occupational Status Attainment. *Social Forces, 59*(4), 1163-1181.

Lundberg, S. (1985). The Added Worker Effect. *Journal of Labor Economics, 3*(1), 11-37.

Lundberg, S. (1988). Labor Supply of Husbands and Wives: A Simultaneous Equations Approach. *The Review of Economics and Statistics, 70*(2), 224-235.

Maloney, T. (1987). Employment Constraints and the Labor Supply of Married Women: A Reexamination of the Added Worker Effect. *The Journal of Human Resources, 22*(1), 51-61.

Mare, R. D. (1991). Five Decades of Educational Assortative Mating. *American Sociological Review, 56*(1), 15-32.

Mayer, K. U., & Carroll, G. R. (1987). Jobs and Classes: Structural Constraints on Career Mobility. *European Sociological Review, 3*(1), 14-38.

McGinnity, F. (2002). The Labour-Force Participation of the Wives of Unemployed Men: Comparing Britain and West Germany Using Longitudinal Data. *European Sociological Review, 18*(4), 473-488.

Myrdal, A., & Klein, V. (1956). *Women's Two Roles: Home and Work*. London: Routledge & Paul 1956.

Oppenheimer, V. K. (1977). The Sociology of Women's Economic Role in the Family. *American Sociological Review, 42*(3), 387-406.

Plantenga, J. (1993). *Een Afwijkend Patroon: 100 Jaar Vrouwenarbeid in Nederland en (West-)Duitsland*. Amsterdam: SUA.

Portegijs, W., Hermans, B., & Lalta, V. (2006). *Emancipatiemonitor 2006: Veranderingen in de Leefsituatie en Levensloop*. Den Haag: Sociaal en Cultureel Planbureau / Centraal Bureau voor de Statistiek.

Robert, P., & Bukodi, E. (2002). Dual Career Pathways: The Occupational Attainment of Married Couples in Hungary. *European Sociological Review, 18*(2), 217-232.

Rosenfeld, R. A. (1992). Job Mobility and Career Processes. *Annual Review of Sociology, 18*, 39-61.

Shavit, Y., & Blossfeld, H.-P. (1993). *Persistent Inequality. Changing Educational Attainment in Thirteen Countries*. Boulder: Westview Press.

Shelton, B. A., & John, D. (1996). The Division of Household Labor. *Annual Review of Sociology, 22*, 299-322.

Smits, J., Ultee, W.C., & Lammers, J. (1998). Educational Homogamy in 65 Countries: An Explanation of Differences in Openness Using Country-Level Explanatory Variables. *American Sociological Review, 63*(2), 264-285.

Smits, J., Ultee, W. C., & Lammers, J. (1999). Occupational Homogamy in Eight Countries of the European Union, 1975-89. *Acta Sociologica, 42*(1), 55-68.

Sørensen, A. (1983). Women's Employment Patterns after Marriage. *Journal of Marriage and the Family, 45*(2), 311-321.

Sørensen, A., & McLanahan, S. (1987). Married Women's Economic Dependence, 1940-1980. *American Journal of Sociology, 93*(3), 659-687.

Sundström, M., & Duvander, A.-Z. E. (2002). Gender Division of Childcare and the Sharing of Parental Leave among New Parents in Sweden. *European Sociological Review, 18*(4), 433-447.

Tijdens, K. G. (2005). *Introduction to the Wageindicator Dataset*. Amsterdam: AIAS.

Tolbert, C. M., Horan, P. M., & Beck, E. M. (1980). The Structure of Economic Segmentation: A Dual Economy Approach. *American Journal of Sociology, 85*(5), 1095-1116.

Treas, J., & Widmer, E. D. (2000). Married Women's Employment over the Life Course: Attitudes in Cross-National Perspective. *Social Forces, 78*(4), 1409-1436.

Ultee, W.C., Dessens, J., & Jansen, W. (1988). Why Does Unemployment Come in Couples? An Analysis of (Un)Employment and (Non)Employment Homogamy Tables for Canada, the Netherlands and the United States in the 1980s. *European Sociological Review, 4*(2), 111-122.

Ultee, W. C., Arts, W., & Flap, H. (2003). *Sociologie: Vragen, Uitspraken, Bevindingen* (3 ed.). Groningen: Wolters-Noordhoff.

Ultee, W. C., & Luijkx, R. (1990). Educational Heterogamy and Father-to-Son Occupational Mobility in 23 Industrial Nations: General Societal Openness or Compensatory Strategies to Reproduction? *European Sociological Review, 6*(2), 125-149.

Uunk, W. J. G., Ganzeboom, H. B. G., & Robert, P. (1996). Bivariate and Multivariate Scaled Association Models. An Application to Homogamy of Social Origin and Education in Hungary between 1930 and 1979. *Quality & Quantity, 30*(3), 323-343.

Valcour, P. M., & Tolbert, P. S. (2003). Gender, Family and Career in the Era of Boundarylessness: Determinants and Effects of Intra- and Inter-Organizational Mobility. *The International Journal of Human Resource Management, 14*(5), 768-787.

Van der Lippe, T. (1993). *Arbeidsverdeling tussen Mannen en Vrouwen. Een Interdisciplinaire Studie naar Betaald en Huishoudelijk Werk binnen Huishoudens*. Rijksuniversiteit Utrecht, Utrecht.

Van der Lippe, T. (2001). The Effect of Individual and Institutional Constraints on Hours of Paid Work of Women. An International Comparison. In T. Van der Lippe & L. Van Dijk (Eds.), *Women's Employment in a Comparative Perspective*. New York: Aldine de Gruyter.

Van der Lippe, T., & Siegers, J., J. (1994). Division of Houshold and Paid Labour between Partners: Effects of Relative Wage Rates and Social Norms. *Kyklos, 47*(1), 109-136.

Van der Lippe, T., & Van Dijk, L. (2001). *Women's Employment in a Comparative Perspective*. New York: Aldine de Gruyter.

Van Gils, W., & Kraaykamp, G. (2008). The Emergence of Dual-Earner Couples: A Longitudinal Study of the Netherlands. *International Sociology, 23*(3), 389-416.

Verbakel, E., & de Graaf, P. M. (2008). Resources of the Partner: Support or Restriction in the Occupational Career? Developments in the Netherlands between 1940 and 2003. *European Sociological Review, 24*(1), 81-95.

Verbrugge, L. M. (1977). The Structure of Adult Friendship Choices. *Social Forces, 56*(2), 576-597.

Vermunt, J., K. (1997*). LEM: A General Program for the Analysis of Categorical Data*. Tilburg University.

Waite, L. J. (1976). Working Wives: 1940-1960. *American Sociological Review, 41*(1), 65-80.

Waite, L. J. (1995). Does Marriage Matter? *Demography, 32*(4), 483-507.

Waldfogel, J. (1997). The Effect of Children on Women's Wages. *American Sociological Review, 62*(2), 209-217.

Curriculum Vitae

Ellen Verbakel was born on September 10, 1980 in Deurne, the Netherlands. She started her study in Sociology at the Radboud University in Nijmegen, the Netherlands in 1998. She obtained her Master's degree in Sociology cum laude in 2003. In the same year, she started as a PhD candidate at the Interuniversity Center for Social Science Theory and Methodology (ICS), working on this book at the Department of Sociology, Radboud University Nijmegen. For several years, she was involved as a teacher in courses on social inequality. In 2005, she spent a research period at the Department of Sociology at Columbia University in New York, where she worked with Professor Thomas A. DiPrete on the incorporation of the value of non-working time in cross-national comparisons of well-being. She is currently working as a postdoctoral researcher at the Department of Sociology at Tilburg University, the Netherlands.

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